INTELLIGENT DISPLAYS

BARCOREALITY 6500

R9001960
R9001969

OWNER'S MANUAL

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Printed in Belgium

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Changes

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This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference, in which case the user will be responsible for correcting any interference.

TABLE OF CONTENTS

1. PACKAGING AND DIMENSIONS

This chapter handles about the way the projector is packed and gives an overview of the dimensions.

- Box content
- Projector Packaging
- Lens Packaging
- Dimensions

1.1 Box content

CEE7

European power plug to connect the power cord to the wall outlet.

ANSI 73.11

American power plug to connect the power cord to the wall outlet.

Content

- 1 projector BARCOREALITY SIM6(weight ± 17 kg or 37.4 lbs)
- 1 remote control unit RCU + 2 batteries.
- 2 power cables with outlet plug type CEE7 and ANSI 73.11.
- 1 owners manual
- 1 safety manual

1.2 Projector Packaging

Way of Packaging

The projector is packed in a carton box. To provide protection during transportation, the projector is surrounded with foam. The package is secured with banding and fastening clips.

To unpack

1. Release the fastening clips.
2. Remove the banding. Handle as shown in the drawing. (image 1-1)
3. Take the projector out of its shipping carton and place it on a table.

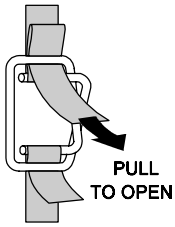


Image 1-1

Save the original shipping carton and packing material, they will be necessary if you ever have to ship your projector. For maximum protection, repack your projector as it was originally packed at the factory.

1.3 Lens Packaging

Way of Packaging

Lenses are supplied as an individual item.

They are packed in a carton box.

1.4 Dimensions

Dimensions overview

Dimensions are given in mm (1 inch = 25.4 mm)

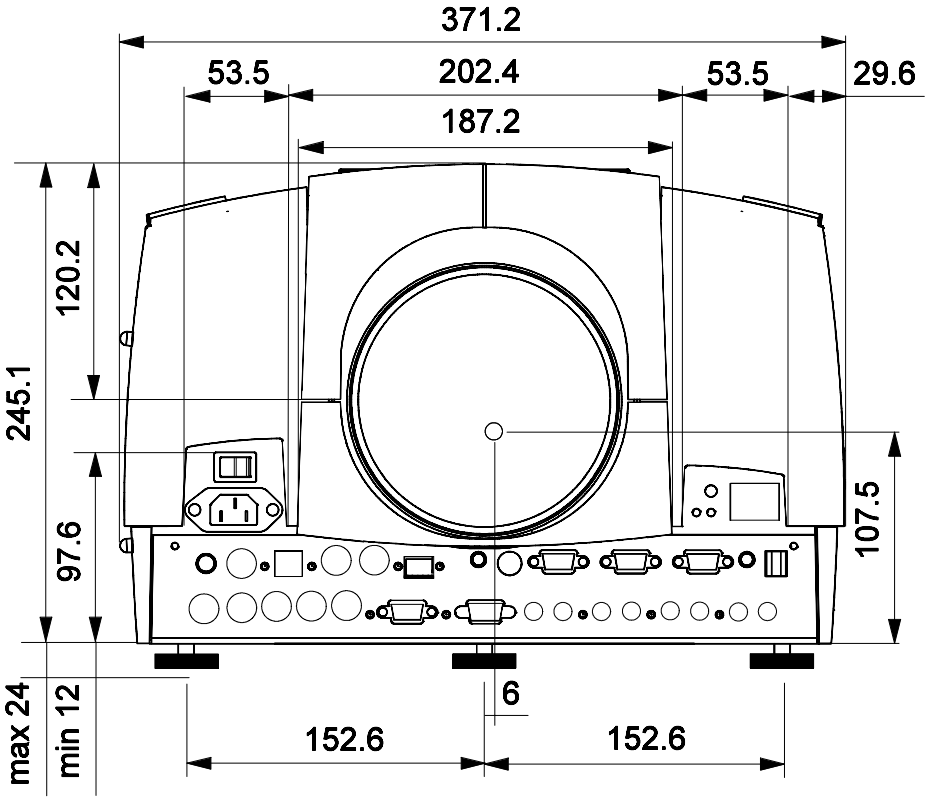


Image 1-2
Front view dimensions projector

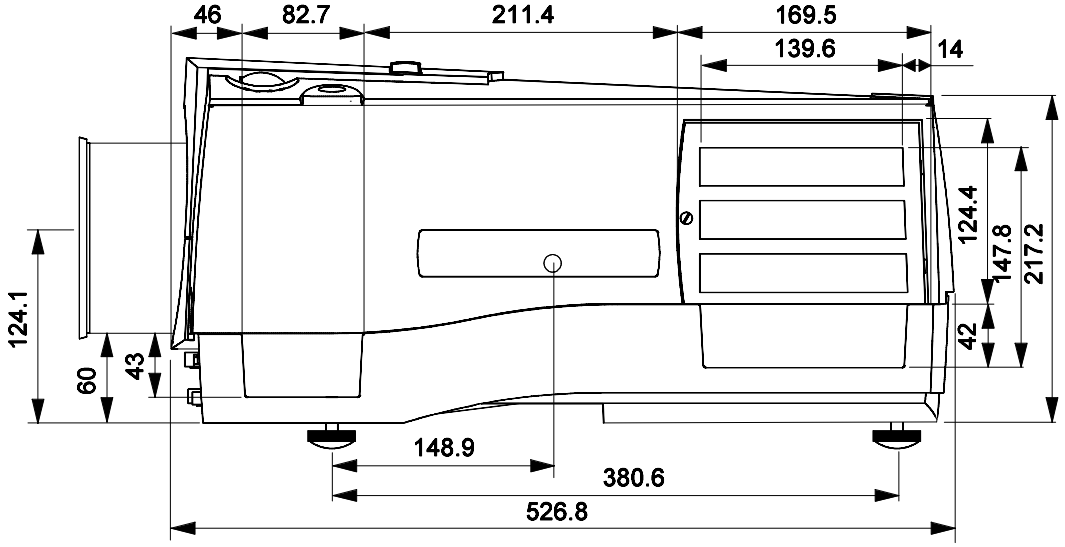


Image 1-3
Side view dimensions projector

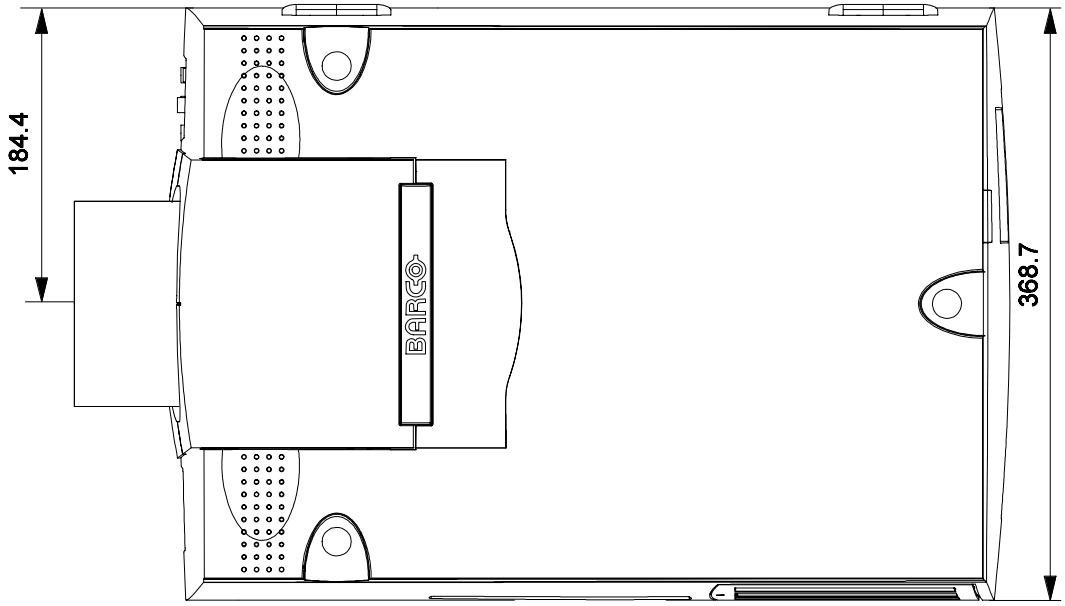


Image 1-4
Top view dimensions projector

2. INSTALLATION GUIDELINES

Overview

- Installation guidelines
- Configuration
- Lenses
- Batteries

Before installing the projector, read first the safety instructions.

2.1 Installation guidelines

Ambient Temperature Conditions.

Careful consideration of things such as image size, ambient light level, projector placement and type of screen to use are critical to the optimum use of the projection system.

Max. ambient temperature : 40 °C or 104 °F

Min. ambient temperature : 0 °C or 32 °F

The projector will not operate if ambient air temperature falls outside this range (0°C- 40°C or 32°F-104°F).

Storage temperature: -35°C to +65°C (-25.6°F to 149°F)

Humidity Conditions

Storage: 0 to 98 % RH Non-condensing

Operation: 0 to 95 % RH Non-condensing

Environment

Do not install the projection system in a site near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity. Be aware that room heat rises to the ceiling; check that temperature near the installation site is not excessive.

Harmful Environmental Contamination Precaution

Environment condition check

A projector must always be mounted in a manner which ensures the free flow of clean air into the projectors ventilation inlets. For installations in environments where the projector is subject to airborne contaminants such as that produced by smoke machines or similar (these deposit a thin layer of greasy residue upon the projectors internal optics and imaging electronic surfaces, degrading performance), then it is highly advisable and desirable to have this contamination removed prior to it reaching the projectors clean air supply. Devices or structures to extract or shield contaminated air well away from the projector are a prerequisite, if this is not a feasible solution then measures to relocate the projector to a clean air environment should be considered.

Only ever use the manufactures recommended cleaning kit which has been specifically designed for cleaning optical parts, never use industrial strength cleaners on a projectors optics as these will degrade optical coatings and damage sensitive optoelectronic components. Failure to take suitable precautions to protect the projector from the effects of persistent and prolonged air contaminants will culminate in extensive and irreversible ingrained optical damage. At this stage cleaning of the internal optical units will be non-effective and impracticable. Damage of this nature is under no circumstances covered under the manufactures warranty and may deem the warranty null and void. In such a case the client shall be held solely responsible for all costs incurred during any repair. It is the clients responsibility to ensure at all times that the projector is protected from the harmful effects of hostile airborne particles in the environment of the projector. The manufacture reserves the right to refuse repair if a projector has been subject to wantful neglect, abandon or improper use.

What about ambient light ?

The ambient light level of any room is made up of direct or indirect sunlight and the light fixtures in the room. The amount of ambient light will determine how bright the image will appear. So, avoid direct light on the screen. Windows that face the screen should be covered by opaque drapery while the set is being viewed. It is desirable to install the projection system in a room whose walls and floor are of non-reflecting material. The use of recessed ceiling lights and a method of dimming those lights to an acceptable level is also important. Too much ambient light will ‘wash out’ of the projected image. This appears as less contrast between the darkest

and lightest parts of the image. With bigger screens, the 'wash out' becomes more important. As a general rule, darken the room to the point where there is just sufficient light to read or write comfortably. Spot lighting is desirable for illuminating small areas so that interference with the screen is minimal.

Which screen type ?

There are two major categories of screens used for projection equipment. Those used for front projected images and those for rear projection applications.

Screens are rated by how much light they reflect (or transmit in the case of rear projection systems) given a determined amount of light projected toward them. The 'GAIN' of a screen is the term used. Front and rear screens are both rated in terms of gain. The gain of screens range from a white matte screen with a gain of 1 (x1) to a brushed aluminized screen with a gain of 10 (x10) or more. The choice between higher and lower gain screens is largely a matter of personal preference and another consideration called the Viewing angle. In considering the type of screen to choose, determine where the viewers will be located and go for the highest gain screen possible. A high gain screen will provide a brighter picture but reduce the viewing angle. For more information about screens, contact your local screen supplier. A high gain screen will provide a brighter picture but reduce the viewing angle.

What image size ? How big should the image be ?

The projector is designed for projecting an image size (video) from 1.00m (3.3ft) to 6.00m (19.7ft) with a aspect ratio of 5 to 4.

2.2 Configuration

Which configuration can be used ?

The projector can be installed to project images in four different configurations :

- Front/table
- Rear/table
- Front/ceiling
- Rear/ceiling

Positioning the projector

Drawings are given for a nominal lens position.

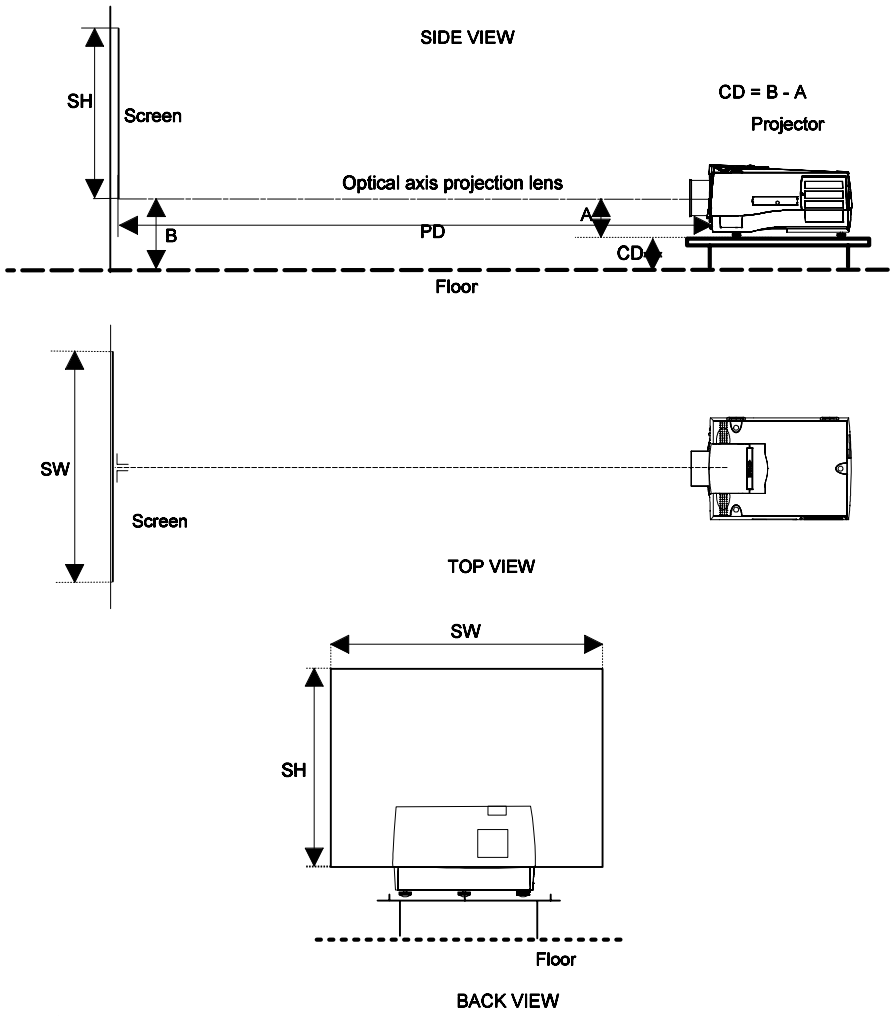


Image 2-1

B Distance between ceiling and top of the screen or between floor and bottom of the screen.
A Correction value, distance between bottom side of projector (without feet) and middle of the lens. Value to be subtracted from B to obtain the correct installation position. (A value is a constant value for all screen widths and type of lenses, A = 124.1 mm or 4.89 inch)
CD Total distance between projector and ceiling or projector and floor.
SW Screen width
SH Screen height (image height)
PD Projector distance, distance between screen and projector

2.3 Lenses

Overview

- Lenses
- Lens selection
- Lens formulas
- Lens installation
- Cleaning the lens

2.3.1 Lenses

Available lenses

The following lenses are available, or will become available (contact a BARCO service center) as an option :

Lenses	Standard version
QFD(1.27:1)	**R9840400**
QFD(2.5:1)	**R9840290**
QFD(1.4-2.1:1)	**R9840380**
QFD(2.1-3.0:1)	**R9840390**
QFD(3.5-4.5:1)	**R9840060**
QFD(4.5-6.0:1)	**R9840100**
QFD(7:1)	**R9840410**

2.3.2 Lens selection

How to select ?

1. Determine the required screen width.
2. Determine the approximate position of the projector in the projection room with regard to the screen and measure the projector-screen distance (PD).
3. Use the lens formulas to find the best corresponding PD with regard to the measured projector-screen distance for the required screen width.

2.3.3 Lens formulas

Formulas

	Metric Formulas (meter)	Inch formulas (inch)
QFD(1.27:1)	PD = 1.29 x SW - 0.0195 + 0.00276/SW	PD = 1.29 x SW - 0.77 + 42.78/SW
QFD(2.5:1)	PD = 1.324 x SW - 0.065 + 0.0297/SW	PD = 1.324 x SW - 0.77 + 46.03/SW
QFD(1.4-2.1:1)	PDmin=1.44 x SW + 0.0287 - 0.022/SW PDmax=2.20 x SW - 0.01 + 0.02/SW	PDmin=1.44 x SW + 1.3 - 34.10/SW PDmin=1.44 x SW + 1.3 - 34.10/SW
QFD(2.1-3.0:1)	PDmin = 2.13 x SW - 0.10 + 0.056/SW PDmax = 2.90 x SW + 0.10 - 0.0745/SW	PDmin = 2.13 x SW - 0.39 + 86.80/SW PDmax = 2.90 x SW + 0.39 - 115.47/SW
QFD(3.5-4.5:1)	PDmin = 3.374 x SW - 0.115 + 0.0575/SW PDmax = 4.433 x SW - 0.133 + 0.0556/SW	PDmin = 3.374 x SW - 4.53 + 89.12/SW PDmax = 4.433 x SW - 5.24 + 86.18/SW
QFD(4.5-6.0:1)	PDmin = 4.29 x SW - 0.02 + 0.0009/SW PDmax = 5.86 x SW + 0.15 + 0.0121/SW	PDmin = 4.29 x SW - 0.79 + 1.395/SW PDmax = 5.86 x SW + 5.91 + 18.755/SW
QFD(7.0:1)	PD = 7.021 x SW + 0.047 + 0.0093/SW	PD = 7.021 x SW + 1.85 + 14.41/SW

Lens program to calculate the projector distance is available on the BARCO web side : http://www.barco.com/projection_systems/customer_services/lens_program.asp

2.3.4 Lens installation

How to install ?

Follow the next procedure :

1. Open the lens cover of the projector by pivoting it up and take it off. (image 2-2)
2. Pull the lens locks levers backwards to open the lens locks. (image 2-3)
3. Put the lens on the lens holder. (image 2-4)
4. Push the lens locks back in position and lock the levers.
5. Plug the wires of the motor unit into the connector (image 2-5)
6. Re-install the lens cover.

Image 2-2

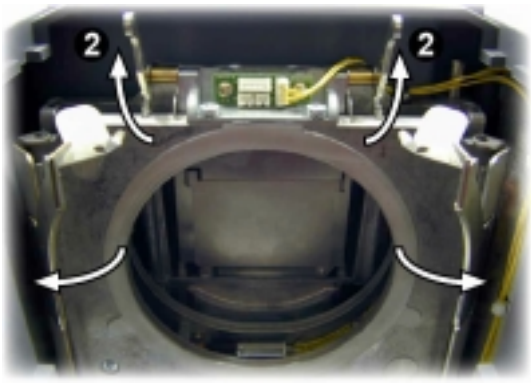


Image 2-3

Image 2-4

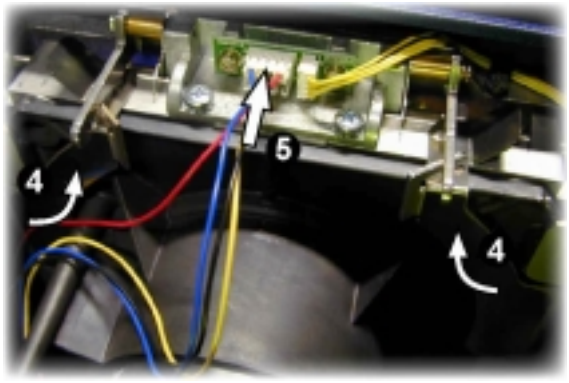


Image 2-5

The procedure for the mounting of a Scheimpflug lens is different.

Refer to the installation manual of the lens.

2.3.5 Cleaning the lens

To minimize the possibility of damaging the optical coating or scratching exposed lens surface, we have developed recommendations for cleaning the lens. FIRST, we recommend you try to remove any material from the lens by blowing it off with clean, dry deionized air. DO NOT use any liquid to clean the lenses.

Necessary tools

Toraysee™ cloth (delivered together with the lens kit). Order number : R379058.

How to clean the lens ?

Proceed as follow :

1. Always wipe lenses with a CLEAN Toraysee™ cloth.
2. Always wipe lenses in a single direction.
   Warning: *Do not wipe back and forwards across the lens surface as this tends to grind dirt into the coating.*
3. Do not leave cleaning cloth in either an open room or lab coat pocket, as doing so can contaminate the cloth.
4. If smears occur when cleaning lenses, replace the cloth. Smears are the first indication of a dirty cloth.

Do not use fabric softener when washing the cleaning cloth or softener sheets when drying the cloth.

Do not use liquid cleaners on the cloth as doing so will contaminate the cloth.

Other lenses can also be cleaned safely with this Toraysee™ cloth.

2.4 Batteries

Overview

- Battery installation
- Battery replacement

2.4.1 Battery installation

How to install the battery

Two batteries are packed together with the RCU. Before using your RCU, install first these batteries.

1. Remove the battery cover on the backside by pushing the handle a little towards the bottom of the RCU.
2. Lift up the top side of the cover at the same time.
3. Insert the batteries as indicated in the RCU.
4. Put the battery cover on its place.

2.4.2 Battery replacement

How to replace the batteries in the RCU

To replace the batteries :

1. Remove the battery cover on the backside by pushing the handle a little towards the bottom of the RCU.
2. Lift up the top side of the cover at the same time.
3. Push on the + side of the battery towards the - side
4. Lift up the battery at the same time.
5. Repeat for the second battery.
6. Insert the batteries as indicated in the RCU (battery type AA or LR6 or equivalent).
7. Put the battery cover on its place. (image 2-6, image 2-7)

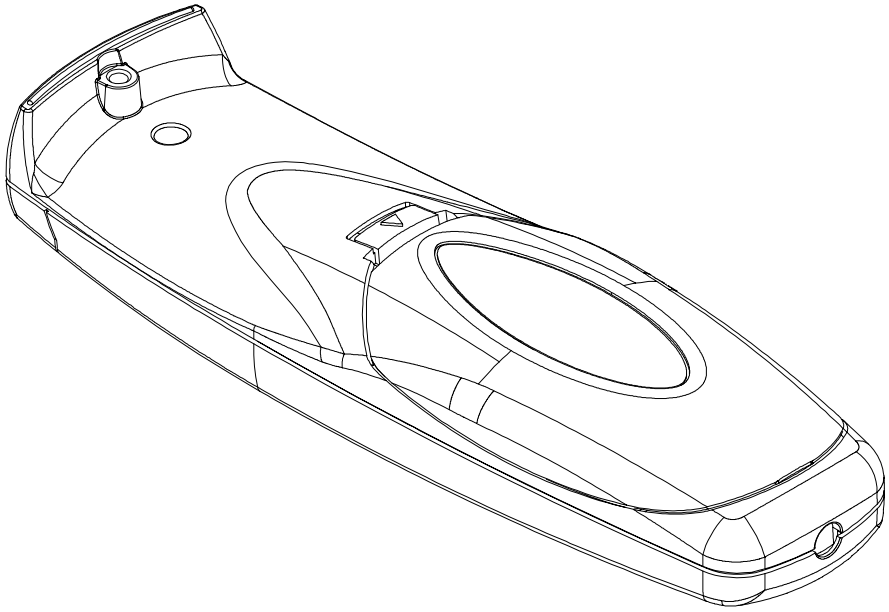


Image 2-6

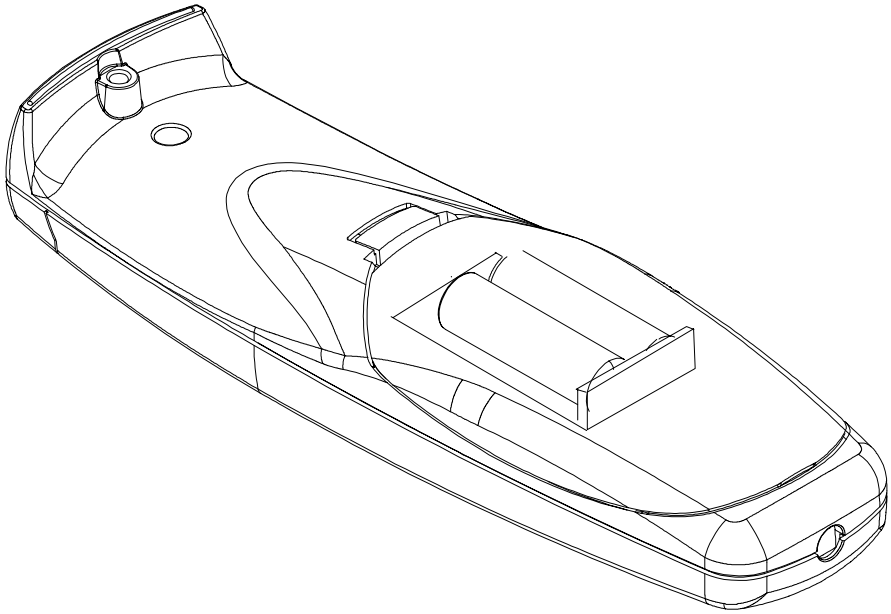


Image 2-7

Note, only important if more than one projector is installed in the room.

The common address can be zero (0) or one (1). The standard RCU are setup for common address zero. To change the common address of the RCU, contact a BARCO service center. If it is necessary to program the projector address into the RCU, see chapter 'Getting Started'.

Projector address has to be reprogrammed every time the battery is changed, the RCU will always switch to the default address.

3. CONNECTIONS

Overview

- Power connection
- Switching on
- Switching to standby.
- Switching off
- Input Source connection
- Communication connections
- Audio connections

3.1 Power connection

AC Power cord connection

Use the supplied power cord to connect your projector to the wall outlet. Plug the female power connector into the male connector at the front of the projector. The power input is auto-ranging from 90 to 240 VAC.

Fuses

For continued protection against fire hazard :

- refer replacement to qualified service personnel.
- ask to replace with the same type of fuse (T10 AH/250V).

3.2 Switching on

How to switch on.

1. Press the power switch to switch on the projector.
   - When '0' is visible, the projector is switched off.
   - When '1' is visible, the projector is switched on

   The projector starts in standby mode. The projector indication lamp is red.

Starting image projection.

1. Press **Stand by** key once on the local keypad or on the remote control.

   The projector mode indication lamp will be green (image 4-2, image 4-3)

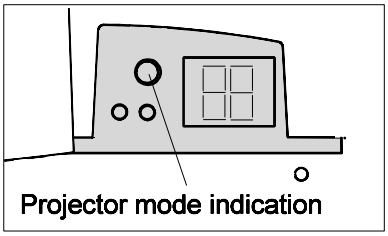


Image 3-1

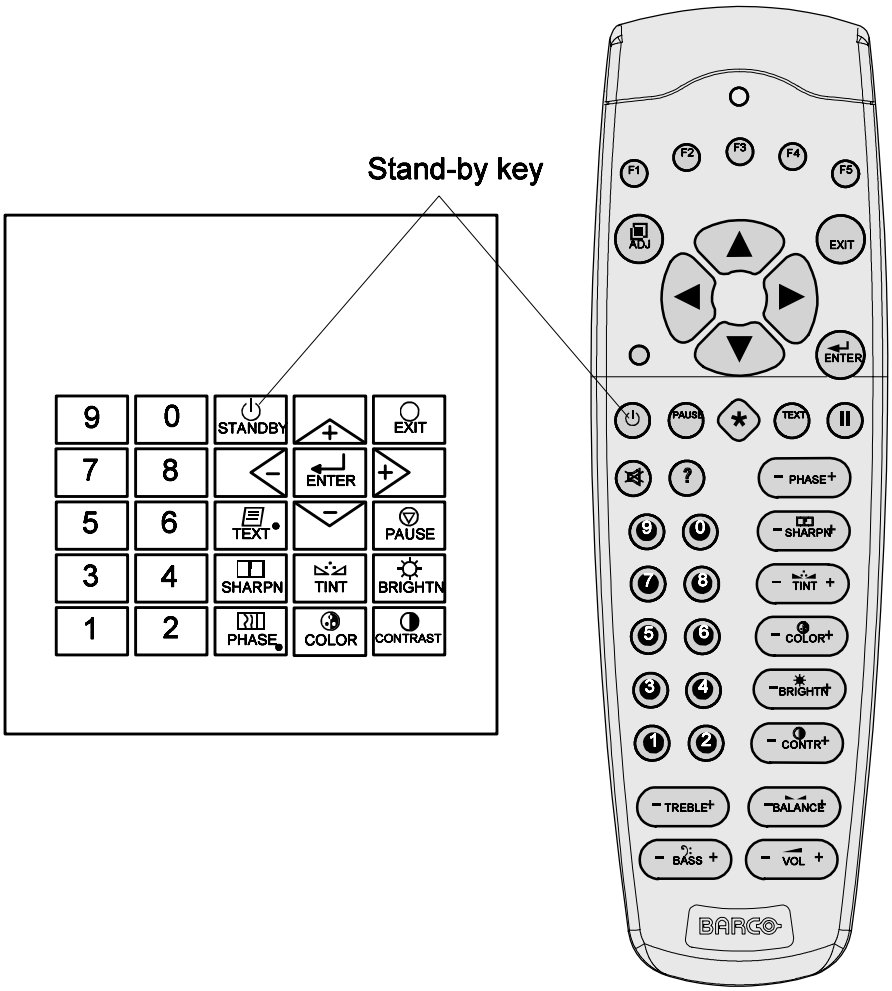


Image 3-2

Lamp run time indication while running

When the total run time of the lamp is 970 hours or more, the following warning message will be displayed. The warning message will be repeated at the next start up.Press **EXIT** to remove the message.

When the total run time of the lamp is 1000 hours or more, the following warning message, with the exact run time is displayed on the screen.

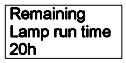


Image 3-3

Lamp run time is 1000 hours. Operating the lamp longer than 1000 hours may damage the projector. Please replace the lamp.

Pressing **ENTER** allows the user to reset the lamp runtime.

The total lifetime of the lamp for a safe operation is 1000 hours max. Do not use it longer. Always replace with a same type of lamp. Call a BARCO authorized service technician for lamp replacement.

Using a lamp for more than 1000 hours is dangerous as the lamp could explode.

3.3 Switching to standby.

How to switch to standby?

1. Press **STANDBY** for 2 seconds until the messages *Saving data please wait* is displayed. (image 4-5)
   Note: *Do not press any longer on the **STANDBY** key otherwise the projector will restart.*

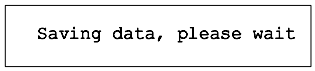


Image 3-4

When switching to standby, it is possible to restart within the first 5sec.. When not restarted within these first 5 sec., the projector waits for 1 min. to restart again. During this period the LED display will show a jumping square with a dash. After one minute, two dashes will be displayed and the projector can restart.

3.4 Switching off

How to switch off the projector?

To switch off the projector, handle as follow :

1. Press **STANDBY** key for 2 seconds. When the message *Saving data, please wait* is displayed, do not press any longer on the **STANDBY** key otherwise the projector will restart.
   Warning: *Let cool down the projector at least 10 min.*
2. Switch off the projector with the power switch.

3.5 Input Source connection

3.5.1 Input facilities

Overview input facilities

- 5-cable input
- Computer
- Video
- S-Video
- Serial digital input
- IEEE 1394 input (optional)

Input selection

This can be manually or automatically.

When 'automatic' is selected in the Input slots menu, by starting up the projector, it searches for an input source by scanning the inputs one by one. If only one source is found, this source will be projected. If different sources are found, the priority is as follow

1. Video
2. S-Video
3. 5 cable input
4. Computer input

SDI and IEEE input are never automatically selected.

When a RCVDS is connected to the projector, the 'Automatic' selection is disabled.

Set up of the input selection

1. Press **ENTER** to start up the adjustment mode.
2. Press the cursor keys to select *Installation*. (menu 3-1)
3. Press **ENTER** to display the *Installation* menu.
4. Press the cursor keys to select *Input slots*. (menu 3-2)
5. Press **ENTER** to display the *Input Slots* menu.
6. Press the cursor keys to select *Slot Selector*. (menu 3-3)
7. Press **ENTER** to toggle between [Manual] or [Automatic].
8. Press **EXIT** several times to leave the adjustment mode.

```
ADJUSTMENT MODE

Select a path from below :
AUTO IMAGE
RANDOM ACCESS
INSTALLATION
SERVICE
Source 01

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 3-1

```
INSTALLATION

INPUT SLOTS
NO SIGNAL
LENS
TEXT BOX POSITION
QUICK ACCESS KEYS
START UP MODE
NETWORK CONFIGURATION
more ...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 3-2

```
INPUT SLOTS

SLOT SELECTOR [Automatic]

x 1. RGB [HV&VS]
- 2. RGB [HV&VS]
- 3. VIDEO
- 4. S-VIDEO
- 5. DIGITAL INPUT
- 6. IEEE 1394

Select with ↑ or ↓
<ENTER> to toggle
<EXIT> to return.
```

Menu 3-3

3.5.2 Inputs via RCVDS05

Overview

When using a RCVDS05, it is recommended to use a 5-cable output module in the RCVDS. The outputs of this module have to be connected to the 5 cable input (slot 1) of the projector. To switch the projector in the 5-cable mode see chapter 'Installation mode'.

3.5.3 5-cable input

Where to find ?

Slot 1 has 5 BNC input terminals. These are in the left corner on the front panel.

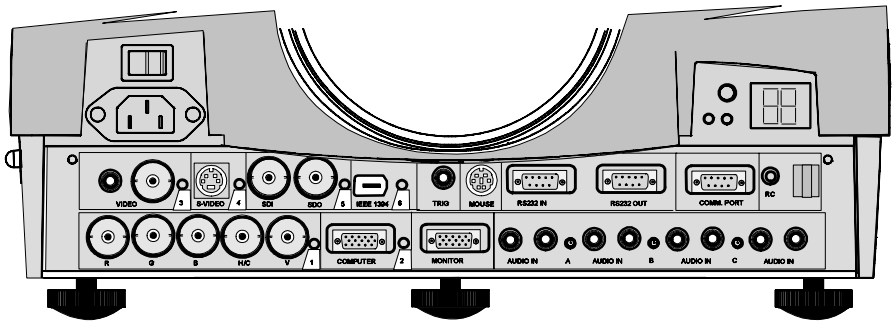


Image 3-5
Overview possible connections

Which signals can be connected to the 5 cable input.

The following signals can be connected to these BNC connectors :

Connector name	R	G	B	H	V
RGBHV	R	G	B	H	V
RGBS	R	G	B	S	-
RGsB	R	Gs	B	-	-
Composite video	-	Video	-	-	-
Super Video	-	Y	-	-	C

Connector name	R	G	B	H	V
Component Video - SS	R-Y	Y	B-Y	S	-
Component Video - SOY	R-Y	Ys	B-Y	-	-

How to select slot 1

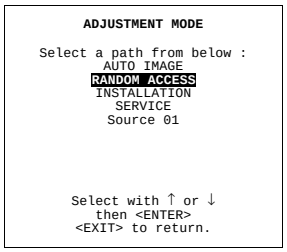
1. Press key 1 on the RCU or the local keypad.

Configuring the 5-cable input.

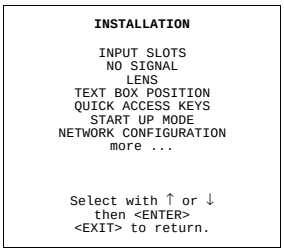
The configuration has to be done on the *Input Slot* menu. To change the signal format :

1. Press **ADJUST** or **ENTER** key to start up the Adjustment mode. (menu 3-4)
2. Push the cursor keys to select *Installation*.
3. Press the cursor keys to select *Input Slots*. (menu 3-5)
4. Press **ENTER**.

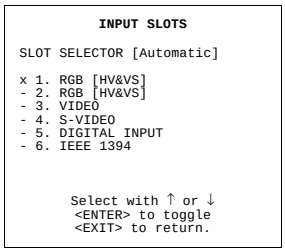
   The internal system will scan the inputs and displays the result in the *Input Slots* menu. (menu 3-6)
5. Push the cursor keys to select the first slot menu 3-4.
6. Press **ENTER** to toggle the input signal priority.



Menu 3-4



Menu 3-5



Menu 3-6

Possible indications on the input slot menu.

- RGB [HS&VS] = RGB analog signals, separate sync is horizontal and vertical sync.
- RGB CS = RGB analog signals, separate sync is composite sync.
- RGB CV = RGB analog signals, separate sync is composite video or tri-level sync.
- RGB-SOG = RGB analog signals, sync on green is composite sync.
- COMPONENT VIDEO - CS = separate sync is composite sync.
- COMPONENT VIDEO = component video with composite sync on Y or composite tri-level sync on Y.
- VIDEO
- S-VIDEO

When using an RCVDS 05 with a 5 cable output module, connect these 5 cables to this 5-cable input slot (slot1) of the projector. All sources of the RCVDS can now be accepted by the projector.

Audio Connection

Connect the audio input to one of the 3 audio inputs.

See Video - audio lock, page 57

3.5.4 Computer input/Monitor output

How to connect the computer to the input?

1. Connect the output of the graphical card of the computer to the Computer input of the projector
   Note: *Only if the connection is < 60 cm. Otherwise insert an interface between the output of the computer and the input of the projector.*
2. Connect the monitor of the computer to the monitor output of the projector. This monitor output is only available when the computer input is used as input.

Pin configuration of the D15 connector.

1	RED
2	GREEN
3	BLUE
4	loop through to monitor
5	ground
6	ground
7	ground
8	ground
9	loop through to monitor
10	ground
11	loop through to monitor
12	loop through to monitor
13	horizontal/composite sync
14	vertical sync
15	loop through to monitor

How to select slot 2.

1. Key in 2 on the RCU or local keypad.

3.5.5 Video input

Video

Composite Video is a single video signal that contains luminance, color and synchronization information. NTSC, PAL and SECAM are examples of composite video systems.

What can be connected to the Video input?

Composite video signals from a VCR, OFF air signal decoder, etc... No loop through.

How to connect a Video source.

1. Connect the video output of your source to the video input of the projector (slot 3). 1 x BNC or cinch 1.0Vpp ± 3 dB. (image 3-6)
   Note: *No loop through available.*

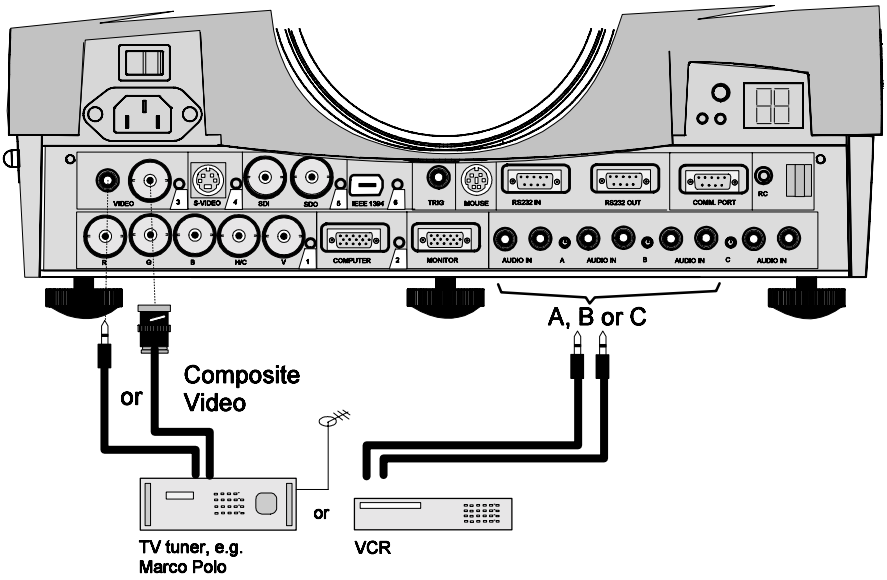


Image 3-6
Video connection to projector

How to select slot 3

1. Key in 3 on the RCU or the local keypad.

3.5.6 S-Video input

What can be connected?

Separate Y-luma/C-chroma signals for higher quality playback of Super VHS-signals.

How to connect the S-Video signal.

1. Connect the S-video output of your source to the S-video input of the projector (slot 4)

Pin configuration of the mini DIN plug.

1	ground luminance
2	ground chrominance
3	luminance 1.0Vpp ± 3dB
4	chrominance 282 mVpp ± 3dB

How to select slot 4?

1. Key in 4 on the RCU or the local keypad.

3.5.7 SDI input / SDO output

What can be connected ?

Full compatibility with digital Betacam, or digital video sources. This avoids the need for analog processing anywhere in the video production chain and guarantees the ultimate image quality. An active loop through of the SDI input signal is provided for monitoring or for double or triple stacking applications.

An active loop through of the SDI input signal is provided for monitoring or for double or triple stacking applications.

How to connect a SDI source ?

1. Connect the out of your SDI source to the BNC SDI input of the projector.
   Note: *The input is always 70 ohm terminated.*
2. If loop through is needed, use the SDO output to connect to next device.
   Note: *The output impedance of the SDO is 75 ohm.*

How to select slot 5

1. Key in 5 on the RCU or the local keypad.

When a RCVDS05 is connected to the projector, the SDI input is available by keying in 85 on the RCU.

3.5.8 IEEE 1394 input

What can be connected ?

This input allows to display video in DV format on the 1394 bus (also called Firewire™ or i.Link™). When a DV camcorder is in camera mode or in VCR mode, playing a tape, it will broadcast the compressed video and audio on the 1394 bus.

DV format

Digital Video format

How to connect ?

1. Connect the output of your DV source to the IEEE 1394 input of the projector. (image 3-7)

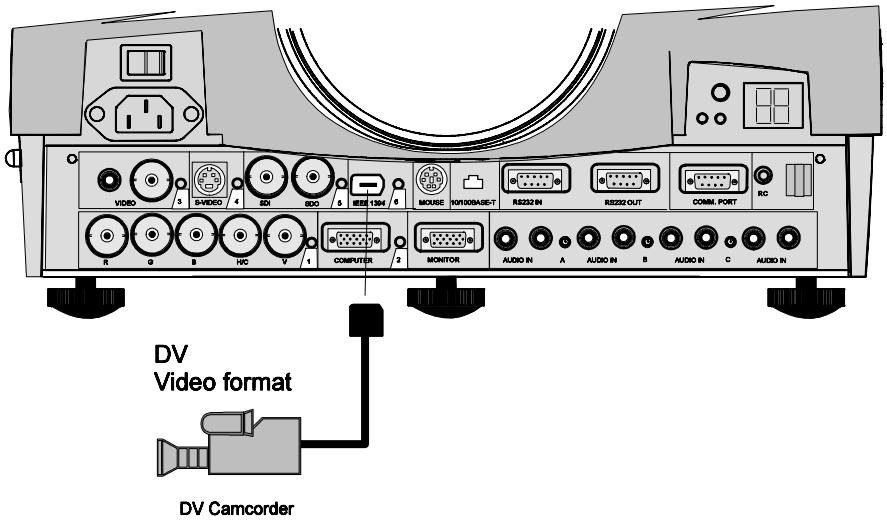


Image 3-7
IEEE connection to the projector

How to select slot 6?

1. Key in 6 on the RCU or the local keypad.
   Note: *When slot 6 is selected, the projector will automatically detect the presence of video on the bus and display it. If not, the 1394 setup command in the Random access adjustment mode can be used to start the decoding manually (only for sources that not fully implement the AV/C protocol).*

3.6 Communication connections

Overview

- RS232
- Communication with peripherals
- Mouse
- Network Connection

3.6.1 RS232

Application

1. Remote control :
   - easy adjustment of projector via an IBM PC (or compatible) or MAC connection.
   - allow storage of multiple projector configurations and set ups.
   - wide range of control possibilities.
   - address range from 0 to 255.
2. data communications : sending data to the projector or copying the data from the projector to a hard memory device (hard disc, floppy, etc.).

How to connect ?

1. Connect the serial communication port of computer or Apple MacIntosh to the RS232 in port of the projector. (image 3-8)

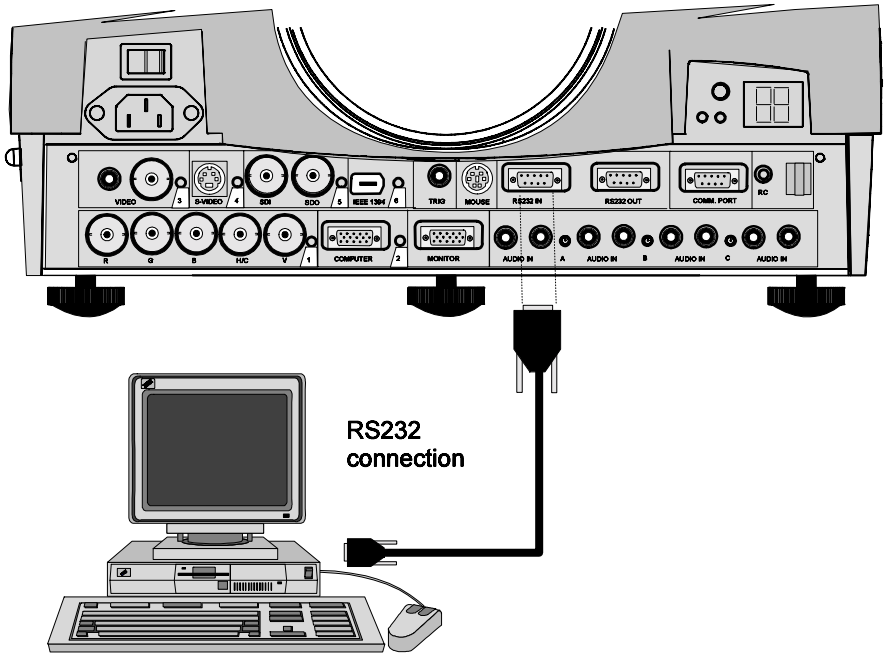


Image 3-8
RS232 connection to projector

Set up of the Baud rate for communication.

see Change Baudrate PC, page 81in chapter Service mode.

3.6.2 Communication with peripherals

Configuration of the port.

This port can be configured to accept PPM or RC5 coded signals. To change the port configuration see Defining the Infrared Communication protocol, page 73 in Chapter Installation.

What is possible with an RCVDS05 connected.

- Up to 20 inputs with the RCVDS 05 and 90 inputs when RCVDS's are linked via the expansion module.
- Serial communication with the projector.
- Remote control buttons on the RCVDS to control the projector (source selection and analog settings).
- The selected source number will be displayed on a 2 digit display and the selected input module will be indicated with a LED on the rear.

For more information about the use of the RCVDS05, consult the owner's manual of the RCVDS05.

3.6.3 Mouse

When available ?

Mouse function is only available with the Executive Remote Control (Order number : **R9829960**). The computer can then be controlled via the projector.

Available mouse functions.

Left click, right click or double click are the same as for a traditional mouse.

For Click and drag : push for 2 seconds on the left (right) mouse button, then move the mouse arrow with the mouse navigator and click again very short on the left (right) mouse button to interrupt the drag function.

How to activate ?

To activate this mouse function, handle as follow :

1. Start up your computer with the computer mouse plugged in. The mouse driver should be loaded.
2. Unplug the computer mouse without switching off the computer.
3. Plug the delivered cable between the mouse input of the computer and the mouse output of the projector.

   Computer can now be controlled with the executive remote control.

For more information about the mouse buttons or functions, consult the owner's manual of the Executive Remote Control.

Before switching off, disconnect first the mouse cable.

3.6.4 Network Connection

What can be done ?

When the optional network connection is installed, the projector can be connected to a LAN (local area network) (ethernet). Once installed and connected to the LAN, users are capable of accessing the projector from any location, inside or outside their company network from a standard web browser. The projector acts as web server and generates a web side with all functions of the projector listed. Via an internet explorer 4.0 or higher, or a Netscape communicator, the user can insert the correct IP-address of the projector and access the webpages. Once the webside is accessed, it is possible to check and manipulate all the projector settings. Remote diagnostics, control and monitoring of the projector can then become a daily and very simple operation. The network connectivity permits to detect potential errors and consequently improve the time to servicing. For the complete documentation about the use of the network connection, consult appendix .

3.7 Audio connections

What is available ?

Three audio inputs and one audio output are available. Each audio input can be associated with an input source using the control software of the projector. e.g. source 1 can be locked with audio input B.

How to lock an audio input ?

Locking an audio input to a source input :

1. Press **ENTER** to start up the adjustment mode.
2. Press the cursor key ↑ or ↓ to select *Random Access*.
3. Press **ENTER** to display the Random Access menu.
4. Press the cursor key ↑ or ↓ to select *Audio Tuning*.
5. Press **ENTER** to display the Audio Tuning menu.
6. Press the cursor key ↑ or ↓ to select *Video-Audio lock*.
7. Press the cursor key ← or → to select the desired source input.
8. Press **ENTER** to toggle between [A], [B] or [C].
9. Press several times **EXIT** or **ADJUST** to return to the operational mode.

See also Video - audio lock, page 57in chapter Random Access adjustment mode.

4. GETTING STARTED

4.1 RCU & Local keypad

How controlling the projector ?

The projector can be controlled by the local keypad or by the remote control unit.

Location of the local keypad ?

The local keypad is located on the backside of the projector.

Remote control functions.

This remote control includes a battery powered infrared (IR) transmitter that allows the user to control the projector remotely. This remote control is used for source selection, control, adaptation and set up. It includes automatic storing of picture controls (Brightness, Sharpness...) and settings.

Other functions of the remote control are :

- switching between stand by and operational mode.
- switching to "pause" (blanked picture, full power for immediate restarting)
- direct access to all connected sources.

4.2 Terminology overview

Overview

The following table gives an overview of the different functionalities of the keys.

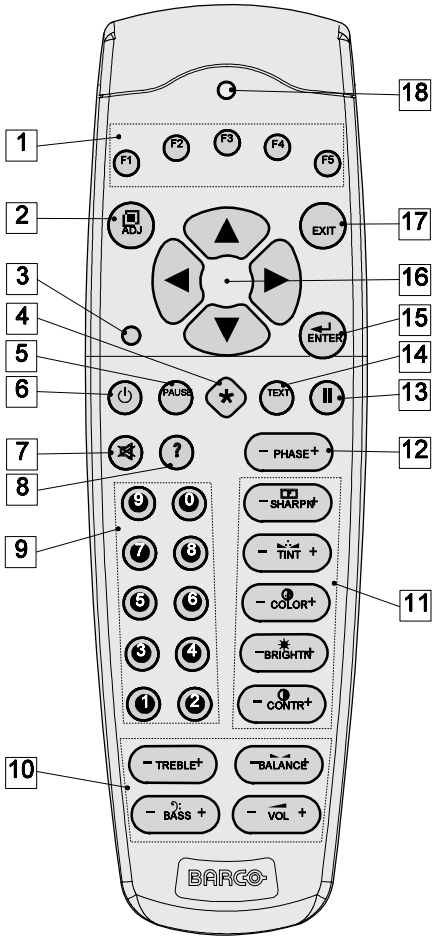


Image 4-1
RCU function indication

1	Function keys	user programmable keys with functions for direct access.
2	ADJ.	Adjust key, to enter the adjustment mode
3	Address key	(recessed key), to enter the address of the projector (between 0 and 9). Press the recessed address key with a pencil, followed by pressing one digit button between 0 and 9.
4	Selection key (*)	to direct access the zoom/focus/shift functions.
5	PAUSE	to stop projection for a short time, press 'PAUSE'. The image disappears but full power is retained for immediate restarting.
6	STBY	standby button, to start projector when the power switch is switched on and to switch off the projector without switching off the power switch. **Attention : Switching to Standby. When the projector is running and you want to go to standby, press the standby key for 2 seconds until the message 'Saving data, please wait' is displayed. Do not press any longer on the standby key otherwise the projector will restart.**
7	MUTE	to interrupt the sound reproduction.
8	?	Auto image, to center the image on the active LCD surface.
9	Digit buttons	direct input selection.
10	Audio controls	use these buttons to obtain the desired sound level.
11	Picture controls	press to adjust the projected image.
12	Phase	press to adjust the phase of the projected image.
13	FREEZ	press to freeze the projected image.

14	TEXT	when adjusting one of the image, e.g. controls during a meeting, the displayed bar scale can be removed by pressing 'TEXT' key first. To re-display the bar scale on the screen, press 'TEXT' key again.
15	ENTER	to start up the adjustment mode or to confirm an adjustment or selection in the adjustment mode.
16	Cursor keys	to make menu selections when in the adjustment mode or to zoom/focus when the direct access is active. Comparison between the cursor keys and the use of the '+' and '-' keys on the local keypad : RCU = local keypad cursor key up = '+' key up cursor key down = '-' key down cursor key right = '+' key right cursor key left = '-' key left
17	EXIT	to leave the adjustment mode or to scroll upwards when in the adjustment mode.
18	RC operation indication	lights up when a button on the remote control is pressed. (This is a visual indicator to check the operation of the remote control)

Table 4-1

4.3 Operating the projector

4.3.1 Switching on

How to switch on.

1. Press the power switch to switch on the projector.
   - When '0' is visible, the projector is switched off.
   - When '1' is visible, the projector is switched on

   The projector starts in standby mode. The projector indication lamp is red.

Starting image projection.

1. Press **Stand by** key once on the local keypad or on the remote control.

   The projector mode indication lamp will be green (image 4-2, image 4-3)

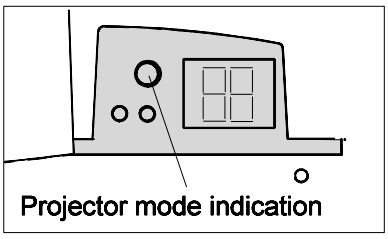


Image 4-2

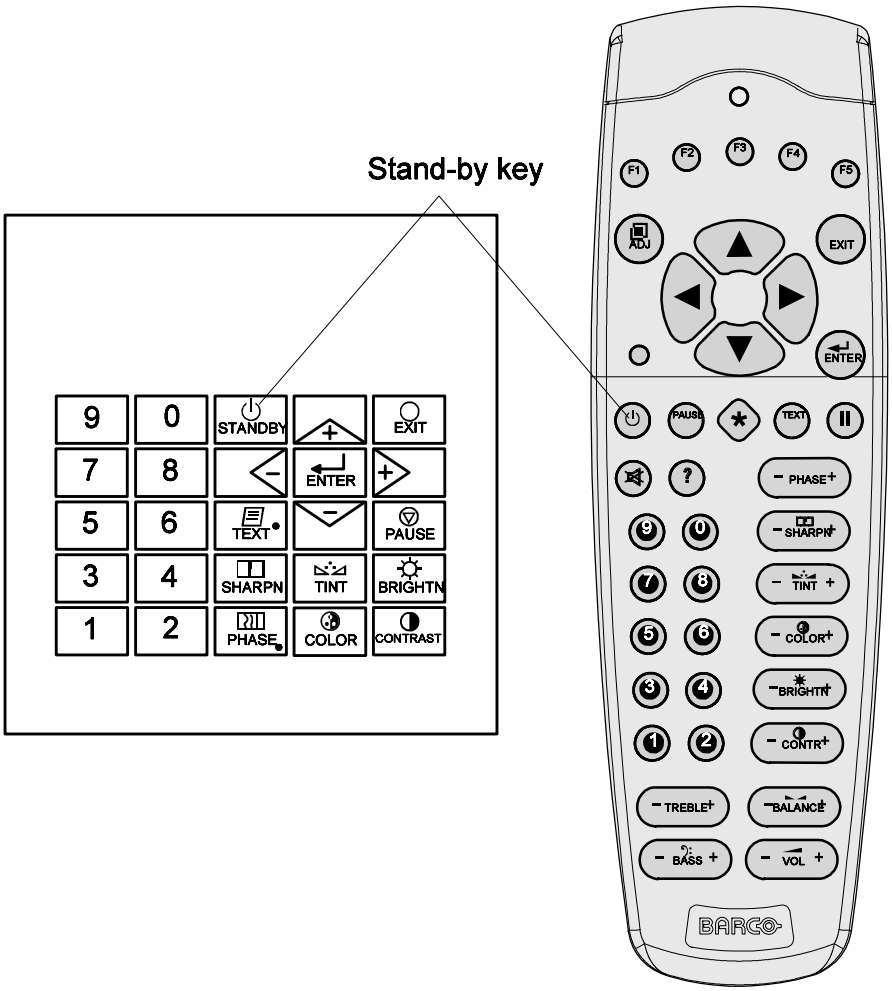


Image 4-3

Lamp run time indication while running

When the total run time of the lamp is 970 hours or more, the following warning message will be displayed. The warning message will be repeated at the next start up.Press **EXIT** to remove the message.

When the total run time of the lamp is 1000 hours or more, the following warning message, with the exact run time is displayed on the screen.

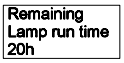


Image 4-4

Lamp run time is 1000 hours. Operating the lamp longer than 1000 hours may damage the projector. Please replace the lamp.

Pressing **ENTER** allows the user to reset the lamp runtime.

The total lifetime of the lamp for a safe operation is 1000 hours max. Do not use it longer. Always replace with a same type of lamp. Call a BARCO authorized service technician for lamp replacement.

Using a lamp for more than 1000 hours is dangerous as the lamp could explode.

4.3.2 Switching to standby.

How to switch to standby?

1. Press **STANDBY** for 2 seconds until the messages *Saving data please wait* is displayed. (image 4-5)
   Note: *Do not press any longer on the **STANDBY** key otherwise the projector will restart.*

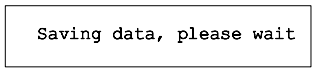


Image 4-5

When switching to standby, it is possible to restart within the first 5sec.. When not restarted within these first 5 sec., the projector waits for 1 min. to restart again. During this period the LED display will show a jumping square with a dash. After one minute, two dashes will be displayed and the projector can restart.

4.3.3 Switching off

How to switch off the projector?

To switch off the projector, handle as follow :

1. Press **STANDBY** key for 2 seconds. When the message *Saving data, please wait* is displayed, do not press any longer on the **STANDBY** key otherwise the projector will restart.
   Warning: *Let cool down the projector at least 10 min.*
2. Switch off the projector with the power switch.

4.4 Quick Set Up Adjustments

Overview

- Quick lens Adjustment
- Quick on Screen Color Change.

4.4.1 Quick lens Adjustment

Quick zoom/focus adjustment

1. Press the Selection key *****.

   The zoom/focus menu will be displayed.
2. Push the cursor key ↑ or ↓ to zoom and ← or → to focus the image.
3. When finished, press **EXIT** key to return or **ENTER** to continue to the shift adjustment.

Quick shift adjustment

1. Press the Selection key *****

   The zoom/focus menu will be displayed.
2. Press **ENTER**.

   The shift menu will be displayed.
   Or ,
   Push the cursor key ↑ or ↓ to shilft the image up or down and ← or → to shift the image left or right.
3. When finished, press **EXIT** key to return or **ENTER** to continue to zoom/focus.

4.4.2 Quick on Screen Color Change.

What can be done ?

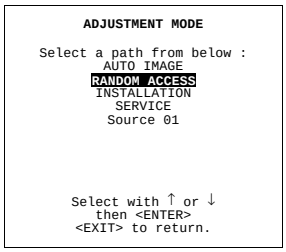
For quick change of the the on-screen color of the highlighted items.

The highlighted items on the menus can be displayed in red, green or yellow.

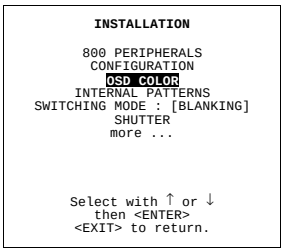
How to change ?

1. Press **ENTER** to start up the adjustment mode. (menu 4-1)
2. Push the cursor key ↑ or ↓ to highlight *Installation*.
3. Press **ENTER** to select. (menu 4-2)
4. Push the cursor key ↑ or ↓ to highlight *OSD color*.
5. Press **ENTER** to select.

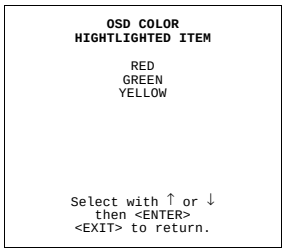
   The OSD color menu will be displayed. (menu 4-3)
6. Push the cursor key ↑ or ↓ to highlight the desired color.
7. Press **ENTER** to activate.



Menu 4-1



Menu 4-2



Menu 4-3

4.5 Using the RCU

Pointing to the reflective screen

1. Point the front of the RCU to the reflective screen surface. (image 4-6)

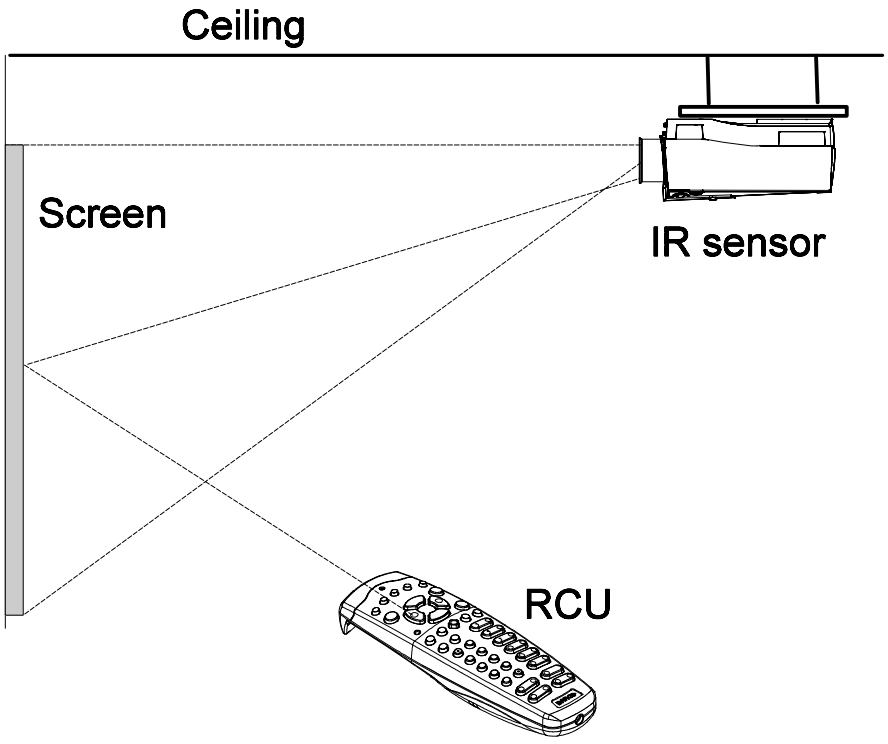


Image 4-6
Pointing the RCU via the screen to the Ir sensor

Hardwired Remote Input

1. Plug one end of the remote cable in the connector on the bottom of the RCU.
2. Plug the other end in the connector in the front panel of the projector labelled ***RC***. (image 4-7)

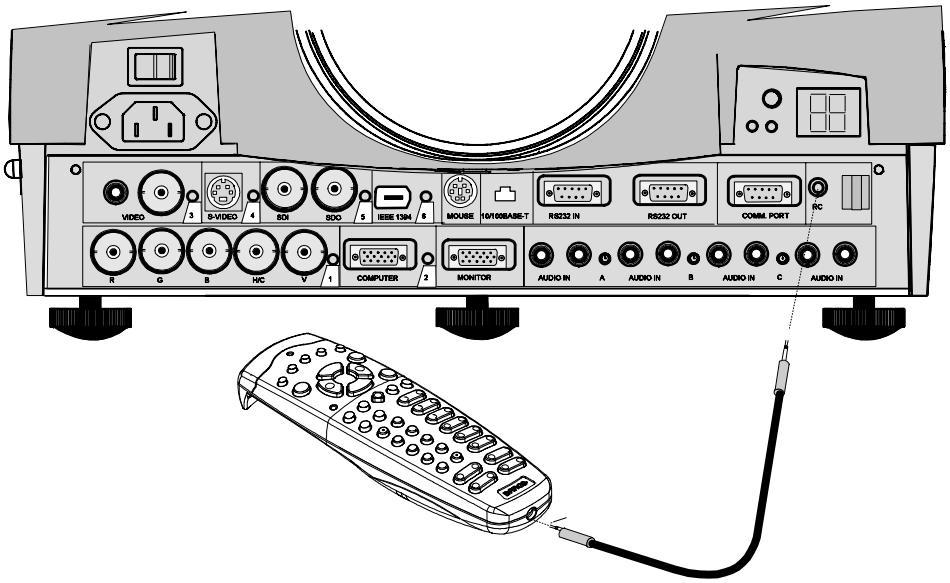


Image 4-7
Wired RCU connection to the projector

Directly to one of the IR sensors of the projector.

When using the wireless remote control, make sure you are within the effective operating distance (30m, 100ft in a straight line). The remote control unit will not function properly if strong light strikes the sensor window or if there are obstacles between the remote control unit and the projector IR sensor.

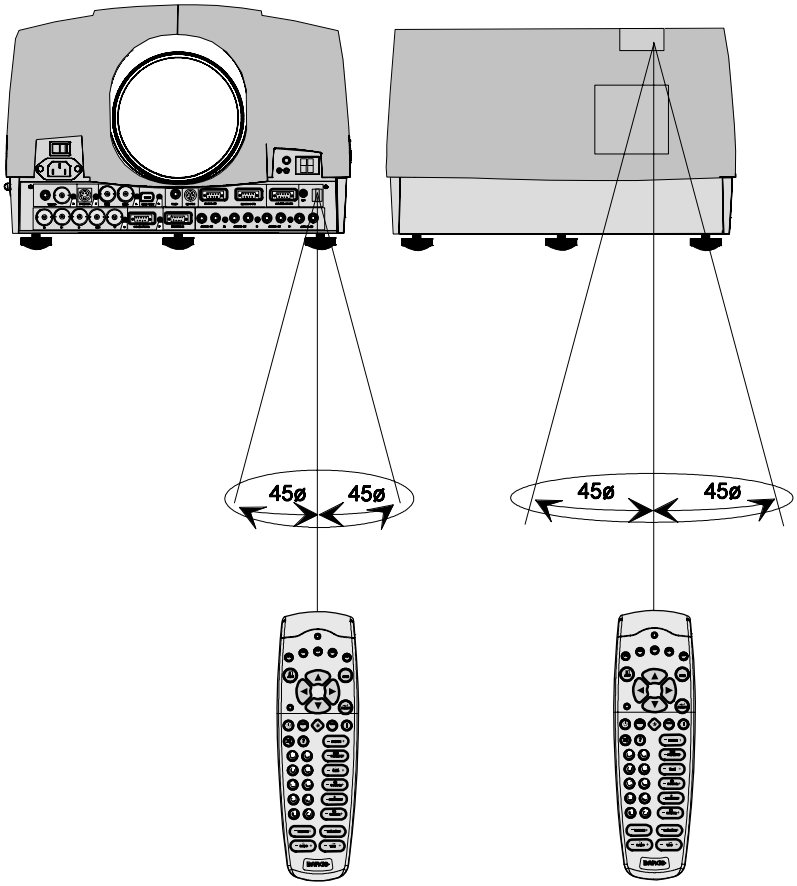


Image 4-8
RCU directly to the IR sensor

4.6 Projector Address

4.6.1 Controlling the projector

Projector address

Address installed in the projector to be individually controlled.

Common address

Default address. Projector will always execute the command comming from a RCU programmed with that common address.

Why a projector address ?

As more than one projector can be installed in a room, the seperate projector should be seperately addressable wiht an RCU or computer. There for each projector has its own address.

Set up an individual Projector Address.

The set up of a projector address can be done via the software. See 'Change projector address'Change Projector Address, page 79 in chapter 'Service mode'.

Projector controlling.

Every projector requires an individual address between 0 and 255 which can be set in the Service mode.

When the address is set, the projector can be controlled now:

- RCU for addresses between 0 and 9.
- computer, e.g. IBM PC (or compatible), Apple MAC, etc. for addresses between 0 and 255.

A projector will respond to a RCU set to the common address ('0' or '1') regardless of what address is set in the projector itself.

The RCU is default programmed with address 0 or 1, 'common address'. With that 'common address' programmed into the RCU, every projector, without exception will listen to the commands given by this RCU. If it is necessary to control a specific projector, than enter the projector address into the RCU (only when that address is between 0 and 9). The projector with the corresponding address will listen to that specific RCU.

Common Address

Every projector has a common address '0' or '1'. The choice between '0' and '1' can be selected in the Service mode.

4.6.2 Displaying and Programming addresses

Displaying the Projector Address on the Screen.

1. Press **Address** key (recessed key on the RCU) with a pencil.

   The projector's address will be displayed in a 'Text box'

To continue using the RCU with that specific address, it is necessary to enter the same address with the digit buttons (address between 0 and 9) within 5 seconds after pushing the address key. For example : if the Address key displays projector address 003, then press "3" digit button on the RCU to set the RCU's address to match the projector's address. Do not press 003 digits. This will address the remote control to '0' and control all projectors in the room. If the address is not entered within 5 seconds, the RCU returns to its default address (zero address) and control all projectors in the room.

How to Program an Address into the RCU?

1. Press the **Address** key (recessed key on the RCU) with a pencil.
2. Enter the address with the digit buttons within 5 seconds after pushing the address key.
   Note: *That address can be any digit between 0 and 9.*

4.7 Controlling the projector

Input Selection

Key in the corresponding slot number with the digit keys on the RCU. The selected source will be displayed.

Picture Controls

When an image control is pressed, a text box with a bar scale, icon and function name of the control, e.g. 'brightness...' appears on the screen (only if text is ON). See example screen. The length of the bar scale and the value of the numeric indication indicate the current memorized setting for this source. The bar scale changes as the control stick on the RCU is pressed or the + or - buttons on the local keypad.

Brightness	A correct 'brightness' setting is important for good image reproduction. Use the + button for a higher brightness. Use the - button for a lower brightness.
Contrast	A correct 'contrast' setting is important for good image reproduction. Adjust the contrast to the level you prefer, according to room lighting conditions. Use the + button for a higher contrast. Use the - button for lower contrast.
Color	Color saturation is only active for Video and S-Video. Adjust the color intensity of the picture. Use the + button for richer colors. Use the - button for lighter colors.
Tint	Tint is only active for Video and S-Video when using the NTSC 4.43 or NTSC 3.58 system. Use the + button Use the - button.
Sharpness	Use the + button for a sharper picture. Use the - button for a softer picture.
Phase	Use the + or - button to adjust the phase.
Freez	Press Freez to freeze the displayed image.

Sound Controls

When a sound control is pressed, a text box with a bar scale, icon and function name of the control, e.g. 'volume...' appears on the screen (only if text is ON). See example screen. The length of the bar scale indicates the current memorized setting for this source. The bar scale changes as the + or - buttons of the control are pressed. The sound controls can only be adjusted with the RCU.

Volume	Volume control adjusts the volume. Use the + button for a higher volume. Use the - button for a lower volume.
Bass	Bass control adjusts the bass level (low tones). Use the + button for more low tones. Use the - button for less low tones.

Treble	Treble control adjusts the treble level (high tones). Use the + button for more high tones. Use the - button for less hight tones.
Balance	Is only effective if a external amplifier with loudspeakers is connected to the audio output. The balance control adjust the sound level between the left and the right box. Use the + button for a higher sound level on the right box than on the left one. Use the - button for a higher sound level on the left box than on the right one.

The Pause Key

When the Pause key is pressed, the image projection is stopped, a blue or black screen will be displayed and the projector remains with full power for immediate restart. The sound is not interrupted. The display on front of the projector will show a "P".

To restart the image :

- Press **Pause** key.
- Press **EXIT** key
- Select a source number.

The Selection key

See Quick lens Adjustment, page 31

5. START UP MODE

What can be done?

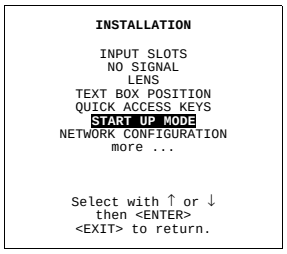
1. During start up, the projector can show first the identification screen or a blank screen.
2. The projector can start up with auto power. The projector starts up in the same power condition as it was before power supply was interrupted.

5.1 Start up with identification screen

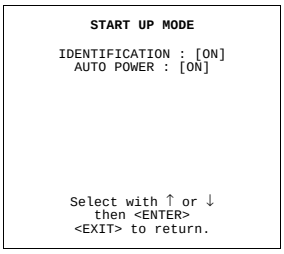
How to set up?

1. Push the cursor key ↑ or ↓ to highlight *Start Up Mode*. (menu 8-18)
2. Press **ENTER** to display the start up mode menu. (menu 8-19)
3. Push the cursor key ↑ or ↓ to highlight *Identification*.
4. Press **ENTER** to toggle between [ON] or [OFF].

[ON]	projector identification will be displayed during start up.
[OFF]	a blank screen will be displayed during start up



Menu 5-1



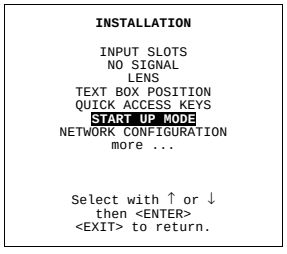
Menu 5-2

5.2 Start up auto power

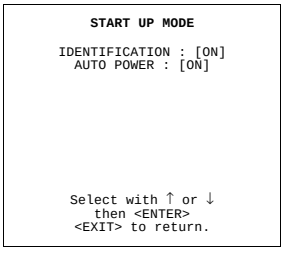
Set up the auto power mode.

1. Push the cursor key ↑ or ↓ to highlight *Start Up Mode*. (menu 8-20)
2. Press **ENTER** to display the start up mode menu. (menu 8-21)
3. Push the cursor key ↑ or ↓ to highlight *Auto Power*.
4. Press **ENTER** to toggle between [ON] or [OFF].

[ON]	projector starts up as it was switched off before. When the projector was in standby before it was switched off, it starts up in standby. When it was switched off with full power, it starts up with full power.
[OFF]	projector always starts up in standby mode.



Menu 5-3



Menu 5-4

6. AUTO IMAGE ADJUSTMENT

6.1 Start up

Why auto image ?

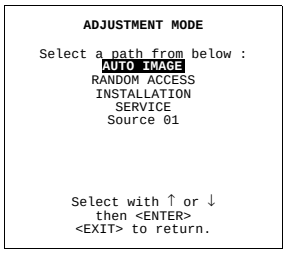
Auto image will center the image on the LCD panel when a file is loaded.

How to start up ?

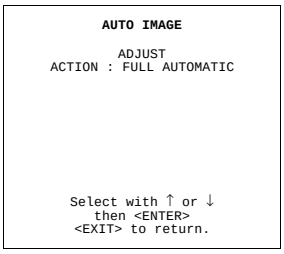
Handle as follow to start up the auto image function :

1. Push the cursor key ↑ or ↓ to highlight *Auto Image*. (menu 6-1)
2. Press **ENTER**.

   The auto image menu will be displayed. (menu 6-2)



Menu 6-1



Menu 6-2

With auto image, it is possible to switch the auto image function 'on' or 'off' and to adjust an existing image when the auto image function is off.

6.2 Adjust

What can be done ?

By selecting Adjust the image will be centered on the active area of the LCD surface. The centering will be done by adapting the values for 'pixel start', 'pixel end', 'line start' and 'line end'.

How to center the image ?

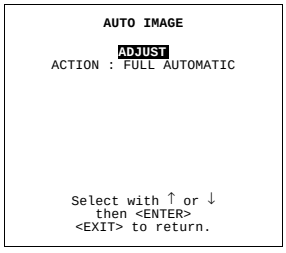
To center the image :

1. Push the cursor key ↑ or ↓ to highlight *Adjust*. (menu 6-3)
2. Press **ENTER** to activate.

   The image will be centered on the LCD surface.

   This is the same function as the **?** key on the remote control when in operational mode.

   The menu is automatically exited. The adjustment values will be saved when switching to another source.



Menu 6-3

6.3 Action

What can be done ?

The action function can be toggled between :

- full automatic : the best fitting file will be loaded automatically when a source is selected. At the same time the image will be automatically centered on the active surface of the LCD.
- on new file : only on a new file, the image will be centered on the active surface of the LCD.
- manual : the auto image function is switched OFF, no centering, no file load.

When is it disabled ?

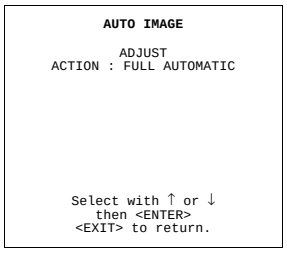
The centering of the image will be disabled when :

- The black edges of the image take more than 25% of the complete image.
- The connected source is video, s-video, digital video or HDTV.
- Custom file already exists.

Set up

To set up the Action function :

1. Push the cursor key ↑ or ↓ to highlight *Action*. (menu 6-4)
2. Press **ENTER** to toggle between *Full automatic*, *New File* or *Manual*.
   Note: *The values of automatically adjusted sources will not be saved.*



Menu 6-4

7. RANDOM ACCESS

7.1 overview flow

Overview

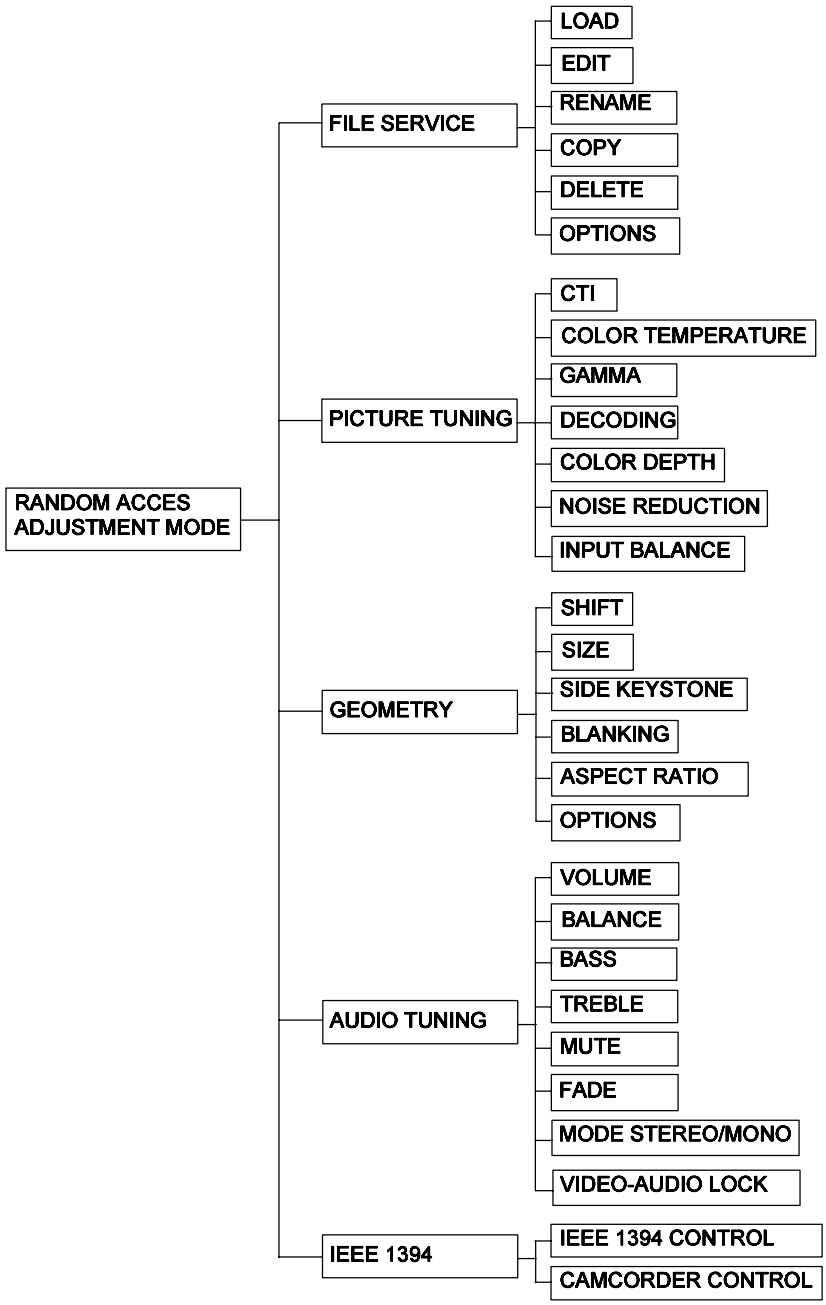
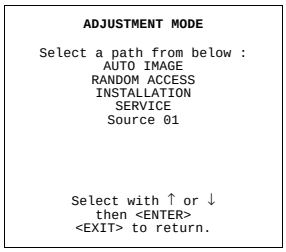


Image 7-1
Random Access Adjustment overview flowchart

Start up

1. Push the cursor key ↑ or ↓ to highlight *Random Access*. (menu 7-1)
2. Press **ENTER**.



Menu 7-1

7.2 Picture Services

7.2.1 File annotation

How a file is built up

The file notation on a menu is built up in different parts. Let us have a look to these parts.

Take the following notation : xxxxxxxx.eee n ppppXppppi

xxxxxxxx	base name, 8 characters
eee	file extension first character C : custom made file first character S : standard file The second and third character is used for a following number (= file index). The file index for custom files : 00 to 63.
n	source number
ppppXpppp	active pixel rating
i	i or blank i = interlaced file blank = not interlaced

Table 7-1

7.2.2 Possible file manipulations

Connecting a new source.

Before using a new source, a correct file has to be installed. The projector's memory contains a list of files corresponding to the most used sources. When the new source corresponds with one of these files, the file can be loaded and saved for future use. When there is a little difference, the file can also be loaded and then edited until the source specs are reached.

file loading can be done automatically (see File options, page 50, in this chapter). Files with a ~ in front of the file name are temporary files. These files will be deleted when switching to another source.

Possible file Manipulations

The following file manipulations are possible :

- Load : installation of a file for a new source.
- Edit : editing a loaded file to the source specs.
- Rename : renaming a file.
- Copy : copying a file.
- Delete : deleting a file
- Options : way of sorting the files.

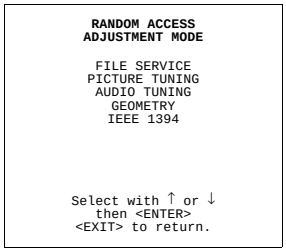
7.2.3 Start up of file services

Start up

To enter the File Service, handle as follow :

1. Push the cursor key ↑ or ↓ to highlight *File Service*. (menu 7-2)
2. Press **ENTER** to select.

   The *File Service* menu will be displayed.



Menu 7-2

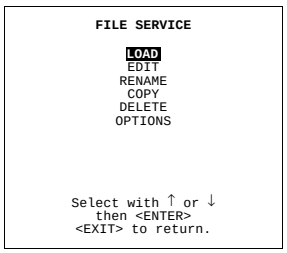
7.2.4 Load file

Start up Load file

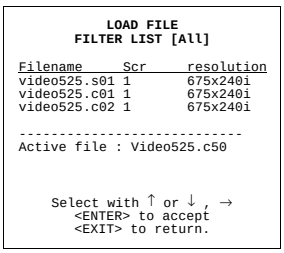
To start up the load file, handle as follow :

1. Push the cursor key ↑ or ↓ to highlight *Load*. (menu 7-3)
2. Press **ENTER** to select.

   The *Load* menu displays the corresponding files depending on the installed filter. (menu 7-4)



Menu 7-3



Menu 7-4

Changing the filter setting

1. Push the cursor key ↑ or ↓ highlight *filter list*.
2. Press **ENTER** to toggle the annotation between brackets.

   [All] : all files that can be loaded will be displayed.

   [Fit] : only the best fitting files will be displayed (with a distinction of ± 2 lines and line duration of ± 300 ns, if nothing is found within this small area, the projector continues searching until it finds something).

How to load a file ?

1. Push the cursor key ↑ or ↓ to select the best fitting file. (menu 7-5)
2. Press **ENTER** to select.

   A confirm Load file menu will be displayed with the newly created file and the one on which the new file is based on. (menu 7-6)
3. Press **ENTER** to confirm the new creation or **EXIT** to return to the load file menu.

```
        LOAD FILE
   FILTER LIST [All]

Filename     Scr     resolution
video525.s01 1       675x240i
video525.c01 1       675x240i
video525.c02 1       675x240i

----------------------------
Active file : Video525.c50


    Select with ↑ or ↓ , →
       <ENTER> to accept
       <EXIT> to return.
```

Menu 7-5

```
        CONFIRM
      LOAD FILE

      create file
     Video525.c02
     based on file
     Video525.s01?




     <ENTER> to return
     <EXIT> to return.
```

Menu 7-6

During a load file, the actual file is displayed next to the indication *Active file*.

When scrolling through the files, the image will be adapted according to the settings of the selected file (on line adaptation.

The image is not perfect ?

If the displayed image is not correct after selecting the best fitting file, go to the Edit menu, select the active file and change the File settings.

7.2.5 Edit file

The Edit file menu makes it possible to change the settings of the file according to the real settings of the connected source. Consult the source specification before entering the data.

- Start up
- Changing the settings
- Correct value

7.2.5.1. Start up

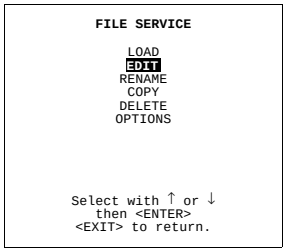
How to start up the Edit menu ?

To start up the EDIT menu :

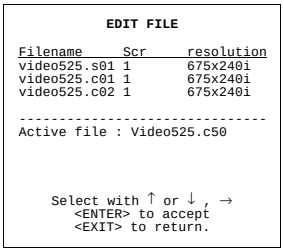
1. Push the cursor key ↑ or ↓ to highlight *Edit*. (menu 7-7)
2. Press **ENTER** to select.

   The Edit file adaptation menu will be displayed. (menu 7-8)
3. Select the file which must be edited (mostly the active file).
4. Press **ENTER**.

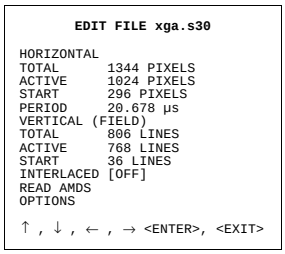
   The file name will be displayed in the upper right corner. (menu 7-9)



Menu 7-7



Menu 7-8



Menu 7-9

7.2.5.2. Changing the settings

Different methods

The 3 different methods to change a setting will be describe hereafter. These methods are :

- with the numeric keys on the remote control.
- with the arrow keys selecting the changing digit.
- with the arrow keys counting up or down.

How to change a setting with the numeric keys?

1. Push the cursor key ↑ or ↓ to select an item.

   The color of the selected item will change.
2. Press **ENTER** to activate the digits.
3. Enter directly with the numeric keys on the RCU or local keypad the new value.

How to change a setting with the cursor keys?

1. Push the cursor key ↑ or ↓ to select an item.

   The color of the selected item will change.
2. Push the cursor key ← or → to select the changing digit.
3. Push the cursor key ↑ or ↓ to scroll to the desired digit.
4. When finished, press **ENTER** to confirm.

How to change a setting with the cursor keys and counting up or down?

1. Push the cursor key ↑ or ↓ to select an item.

   The color of the selected item will change.
2. Counting up or down by pushing the cursor key ← ro →.

7.2.5.3. Correct value

What is already available during start up?

During the installation of a file with LOAD, the horizontal period, the total number of vertical lines and the interlaced mode are automatically measured and filled in in the menu table. These values will be available when starting up the EDIT procedure of an active file.

Do not adjust these settings on an active file, they are used to identify the input source file.

How to find the correct values for the item in the Edit file menu?

Horizontal Total Pixels	If the value for "Horizontal Total Pixels" is wrong, sampling mistakes (small vertical bars in the projected image) will be seen in the image. Select "Total" and adjust the pixel quantity. Adjust for zero bars. hint: if the number of bars increase, adjust in the other direction.
Active Pixels	The "Active Pixels" : determine the width of the window on the screen. This value is normally given in the source specifications. If not, adjust until full image is displayed (no missing pixels).
Horizontal Start	number of pixels between the beginning of the input signal and the start of the video information in the signal.
Horizontal Period	already filled in with the correct value when active file.
Vertical Total Lines	already filled when an active file is selected to be edited
Active Lines	number of horizontal lines determining the height of the projected image. This value is normally given in the specification of the source. If not, adjust until full image height is displayed (no missing lines)
Vertical Start	number of lines between the start of the input signal and start of the image on the screen.
Interlaced [On] or [Off]	this selection is automatically filled when active file has to be edited. If the image is wrong due to mismeasurement, use the ENTER key to toggle between [On] and [Off]. (for interlaced images, 1 frame contains 2 fields).
Read AMDS	AMDS = automatic mode detection & synchronization During the installation of a file with LOAD, the system automatically measured the horizontal period, the total vertical lines and the interlaced mode. When selecting Read AMDS, the system remeasures the above indicated items.

How to install the correct settings for the options in the Edit file menu.

```
        EDIT FILE OPTIONS

Source number            1
Clamo position           [leading]
Clamp delay              0
Clamp width              10
Field polarity           [pos]
Field select             [both]
Vertical refresh         [sync]
Vertical sync polarity   [leading]


       Select with ↑ or ↓
        <ENTER> to toggle
     ↑ or ↓ to change value
        <EXIT> to return.
```

Menu 7-10

Source number	The source number of a non-active source can be changed to any other source number. This makes it possible to create a file for future source numbers.
Clamp position	Clamping determines the black level of the signal. The clamp pulse can be related to the leading or the trailing edge of the sync pulse. Use the **ENTER** key to toggle between [leading] and [trailing].
Clamp delay	The time between the leading edge of the clamp pulse and the locked edge of the sync pulse. Can be any value between 0 and 255. Change the value by pushing the cursor key ↑ or ↓.
Clamp width	The width of the clamp pulse can be any value between 0 and 255. Change the value by pushing the cursor key ↑ or ↓.

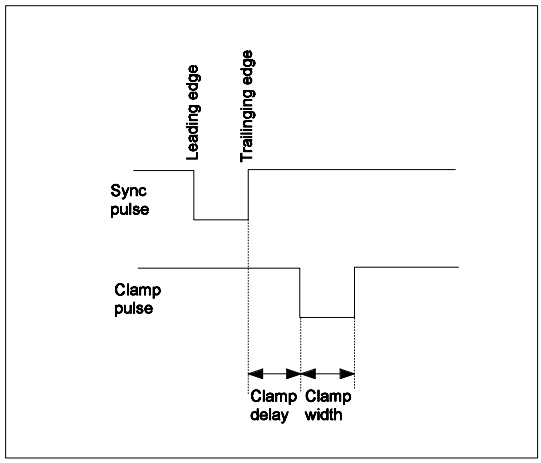


Image 7-2
Example for *Clamp position* [trailing]

Field polarity	The field polarity function is used for interlaced images. Both rasters of the image could be shifted in a wrong way (double lines are visible in the image). This can be corrected by forcing the field polarity to [neg] or [pos]. Use the **ENTER** key to toggle between [pos] and [neg].
Field select	Default [both] The field select is only used for interlaced images. One frame of an interlaced image contains two fields, an even and an odd field. The choice exists to project [both] fields on the screen or only the [even] or [odd] field. This can be useful for 3D projection. Use the **ENTER** key to toggle between [both], [even] and [odd].
Vertical refresh [sync/async]	The way of updating the image information on the LCD panels. Not available for PAL-NTSC-SECAM sources. This option will be displayed in gray. • For sources with a vertical frequency up to 60 Hz : the vertical refresh rate is the same as the vertical frequency of the incoming source. This is a necessity to project moving images without 'motion artifacts'. For stationary images with a vertical frequency up to 60 Hz it is still possible to use asynchronous refresh. When loading Pal, Secam, NTSC-files the synchronous mode is default, for all other sources below 60 Hz asynchronous mode is default. • For sources with a vertical frequency higher that 60 Hz : the vertical refresh is different than the vertical frequency of the incoming source. Synchronous refresh cannot be used.
Vertical Sync Polarity: [leading] or [trailing]	The vertical refresh can be synchronized with the leading sync edge or trailing sync edge. Default on [leading]. Toggling to [trailing] is only necessary for special applications where the trailing edge of the sync signal has to be taken as a reference. Use the **ENTER** key to toggle between [leading] or [trailing]

7.2.6 Rename

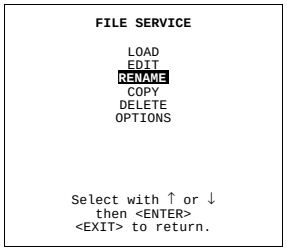
Start Up

To change the name of a selected file :

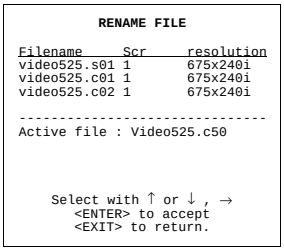
1. Push the cursor key ↑ or ↓ to highlight *Rename*. (menu 7-11)
2. Press **ENTER**.

   The Rename selection menu will be displayed. (menu 7-12)
3. Push the cursor key ↑ or ↓ to select a file name.
4. Press **ENTER** to select.

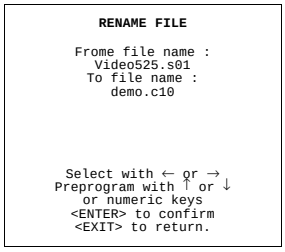
   The Rename file menu will be displayed with the selected file name already filled in, leave in the 'From file name :' area and in the 'To file name :' area. The first character in the 'To file name :' area is highlighted. (menu 7-13)



Menu 7-11



Menu 7-12



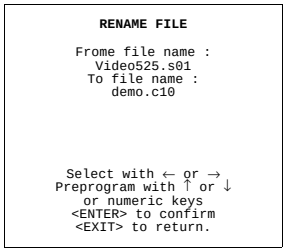
Menu 7-13

Changing the characters

1. Push the cursor keys ← or → to select the desired character. (menu 7-14)
   Or ,
   Change that character by pushing the cursor keys ↑ or ↓. Numeric characters can be entered directly with numeric keys on the RCU.
   Or ,
   Press **ENTER** to confirm.

   The renamed file is entered in the list of files.
2. Press **EXIT** to return to the Rename menu selection.

   No changes are made.



Menu 7-14

7.2.7 Copy

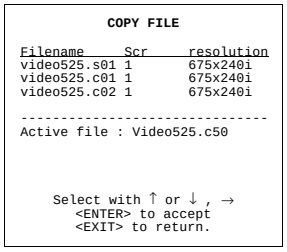
Start Up

To copy the name of a selected file :

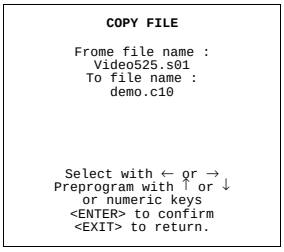
1. Push the cursor key ↑ or ↓ to highlight *Copy*.
2. Press **ENTER**.

   The Copy selection menu will be displayed. (menu 7-15)
3. Push the cursor key ↑ or ↓ to select a file name.
4. Press **ENTER** to select.

   The Copy file menu will be displayed with the selected file name already filled in, leave in the 'From file name :' area and in the 'To file name :' area. The first character in the 'To file name :' area is highlighted. (menu 7-16)



Menu 7-15



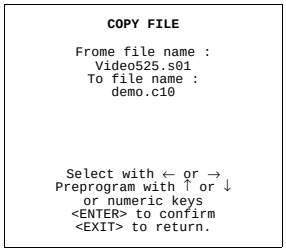
Menu 7-16

Changing the characters

1. Push the cursor keys ← or → to select the desired character. (menu 7-17)
   Or ,
   Change that character by pushing the cursor keys ↑ or ↓. Numeric characters can be entered directly with numeric keys on the RCU.
   Or ,
   Press **ENTER** to confirm.

   The copy file is entered in the list of files.
2. Press **EXIT** to return to the Copy menu selection.

   No changes are made.



Menu 7-17

7.2.8 Delete

Start up and delete

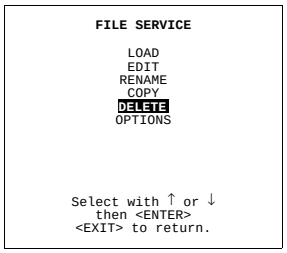
To delete a selected file out of the list of files :

1. Push the cursor key ↑ or ↓ to highlight *Delete*. (menu 7-18)
2. Press **ENTER**.

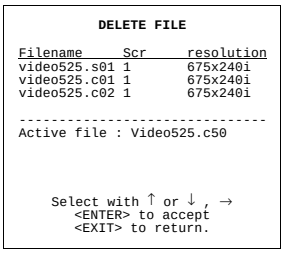
   The delete selection menu will be displayed. (menu 7-19)
3. Push the cursor key ↑ or ↓ to select a file name.
4. Press **ENTER** to select.

   If [all] is selected, your password has to be entered before all files will be deleted.

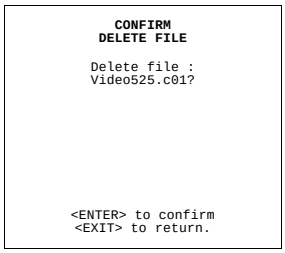
   A confirmation menu "Delete file 'file name'?" is displayed. (menu 7-20)
5. Press **ENTER** to delete the file, press **EXIT** if you want to keep it.
   Note: *The active file cannot be deleted.*



Menu 7-18



Menu 7-19



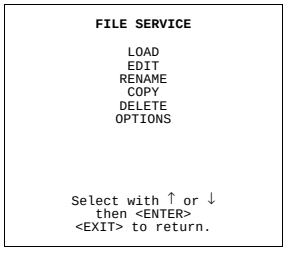
Menu 7-20

7.2.9 File options

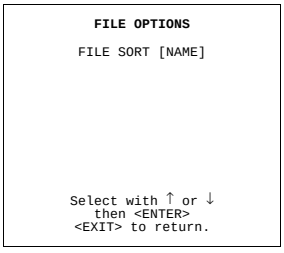
Start up

1. Push the cursor key ↑ or ↓ to highlight *Options*. (menu 7-21)
2. Press **ENTER**.

   The option selection menu will be displayed. (menu 7-22)



Menu 7-21



Menu 7-22

File Sort

1. Press ENTER to toggle between [name] and [index].
   - [name] : the files in the list will be sorted on the file name.
   - [index] : the files in the list will be sorted on the file extension.

7.3 Picture Tuning

The following items will be discussed within Picture Tuning :

- Start up
- CTI
- Color Temperature
- Gamma
- Decoding
- Dynamic Color Depth
- Noise Reduction
- Input Balance

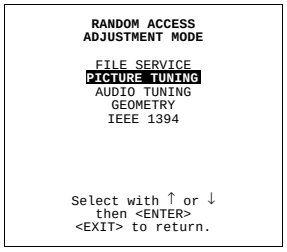
7.3.1 Start up

Start up

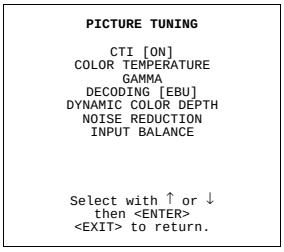
To improve the image quality, the items in the Picture Tuning menu can be toggled or adjusted. To start up the Picture Tuning :

1. Push the cursor key ↑ or ↓ to highlight *Picture Tuning*. (menu 7-23)
2. Press **ENTER** to select.

   The picture tuning menu will be displayed. (menu 7-24)



Menu 7-23



Menu 7-24

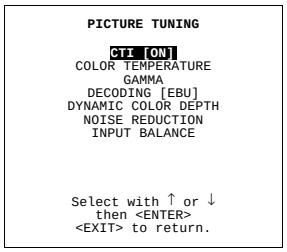
7.3.2 CTI

CTI

Color transient improvement. To improve the transition from one color to another.

Changing the CTI setting

1. Push the cursor key ↑ or ↓ to highlight *CTI*. (menu 7-25)
2. Press **ENTER** to toggle between ON and OFF.



Menu 7-25

This CTI function applies to PAL and NTSC video or S-video inputs only.

7.3.3 Color Temperature

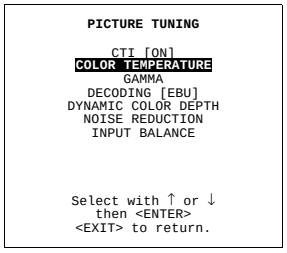
Available Color temperatures

- Projector white
- Broadcast 3200K
- Film 5400K
- Video 6500K
- Computer 9300K
- Custom balance

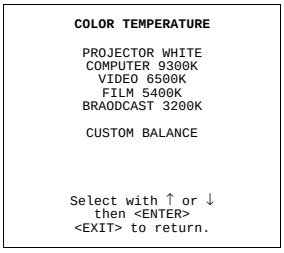
Start Up

1. Push the cursor key ↑ or ↓ to highlight *Color Temperature*. (menu 7-26)
2. Press **ENTER** to select.

   The color temperature selection menu will be displayed. (menu 7-27)



Menu 7-26



Menu 7-27

Adjusting the color balance

1. Adjusting the color balance by selecting a fixed color balance ?
   Push the cursor key ↑ or ↓ to highlight one of the preprogrammed color balances. Press **ENTER** to select
   Note: *Projector white will provide maximum projector light output. The calibrated 'Broadcast', 'Film', 'Video' and 'Computer' presets will provide optimum color tracking.*

   If no, go to step 2
2. Push the cursor key ↑ or ↓ to adjust red and push the cursor key ← or → to adjust blue (range 0 to 2.5)in comparison with the green color. (image 7-3)

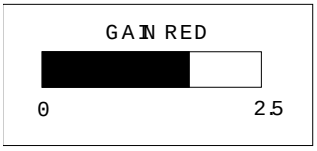


Image 7-3

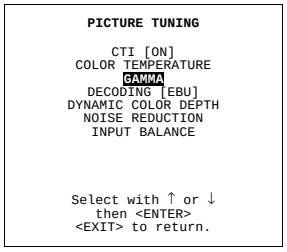
7.3.4 Gamma

What can be adjusted ?

With the gamma correction adjustment, it is possible to accurately set the gamma of the projector image.

Changing the gamma value

1. Push the cursor key ↑ or ↓ to highlight *Gamma*. (menu 7-28)
2. Press **ENTER** to select.
3. Change the gamma value by pushing the cursor key ← or → until the desired value is reached.
   Note: *Default value of gamma : 1.9*
4. Press **EXIT** to return to the *Picture Tuning* menu.



Menu 7-28

7.3.5 Decoding

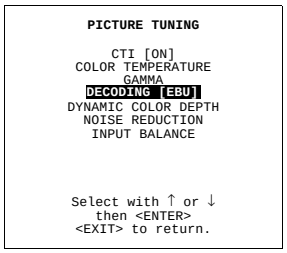
Decoding is only for NTSC signals.

What can be done ?

The possibility is offered to decode the NTSC video signals via the default American IRE standard or via the European EBU standard. Decoding a NTSC signal using the European EBU standard may result in a greenish tint.

How to change the decoding setting ?

1. Push the cursor key ↑ or ↓ to highlight *Decoding*. (menu 7-29)
2. Press **ENTER** to toggle between EBU or IRE.
3. Press **EXIT** to return.



Menu 7-29

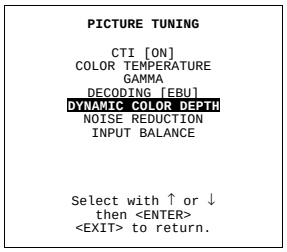
7.3.6 Dynamic Color Depth

Purpose

Increases color contrast for all video and data sources.

Changing the Dynamic Color depth value.

1. Push the cursor key ↑ or ↓ to highlight *Dynamic Color Depth*. (menu 7-30)
2. Press **ENTER** to select.
3. Change the value by pushing the cursor key ← or → until the desired dark color saturation is reached.
4. Press **EXIT** to return the *Picture Tuning* menu.



Menu 7-30

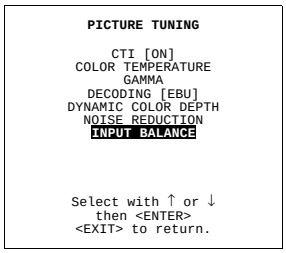
7.3.7 Noise Reduction

Purpose

Reduces noise and pixel jitter in all video and data sources

Changing the noise reduction value.

1. Push the cursor key ↑ or ↓ to highlight *Noise Reduction*. (menu 7-31)
2. Press **ENTER** to select.
3. Change the value by pushing the cursor key ← or → until the desired noise level is reached.
4. Press **EXIT** to return the *Picture Tuning* menu.



Menu 7-31

7.3.8 Input Balance

Why adjusting the input balance?

The input balance is normally correct adjusted in the factory. But due to signal distribution or signal transmission, a color imbalance can be the result. This imbalance can be adjusted source by source for color critical applications. These adjustments influence only the actual custom adjustment file. This procedure is not so easy.

Before starting the Input Balance function, generate a signal with dominant full black and full white areas.

Step to be taken

To adjust the input balance, the following steps have to be executed in the following order :

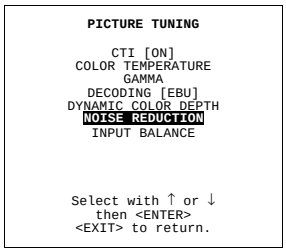
1. Start with the black balance.
2. Continue with the white balance.

The default values are normally loaded when selecting a source. If the image is not as desired, continue with the next procedure.

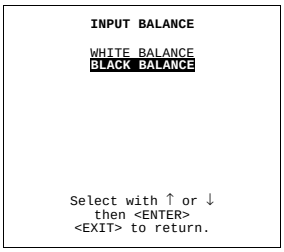
Black balance adjustment

1. Is the input balance menu already activated ?
   If yes, go to step 4
   If no, go to step 2
2. Push the cursor key ↑ or ↓ to highlight *Input Balance*. (menu 7-32)
3. Press **ENTER** to select.

   The Input Balance menu will be displayed. (menu 7-33)
4. Push the cursor key ↑ or ↓ to highlight *Black Balance* menu 7-33.
5. Press **ENTER** to select.
6. Adjust the Brightness to a maximum value until there is just no green noise visible in the black areas.
7. Adjust with the cursor keys ↑ or ↓ or ← or → until there is no red or blue noise visible in the black areas.



Menu 7-32

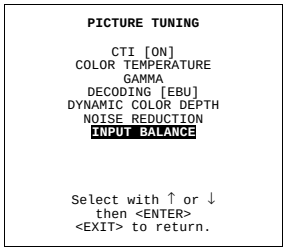


Menu 7-33

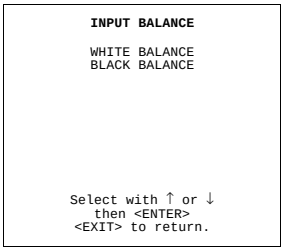
White balance adjustment

1. Is the input balance menu already activated ?
   If yes, go to step 4
   If no, go to step 2
2. Push the cursor key ↑ or ↓ to highlight *Input Balance* (menu 7-34)
3. Press **ENTER** to select.

   The Input Balance menu will be displayed. (menu 7-35)
4. Push the cursor key ↑ or ↓ to highlight *Black Balance* menu 7-35.
5. Press **ENTER** to select.
6. Adjust the Contrast to a maximum value until the white areas are just white (without green noise) and return one step.
7. Adjust with the cursor keys ↑ or ↓ or ← or → until there is no red or blue noise visible in the white areas.



Menu 7-34



Menu 7-35

7.4 Audio Tuning

The following items can be adjusted within the audio tuning menu :

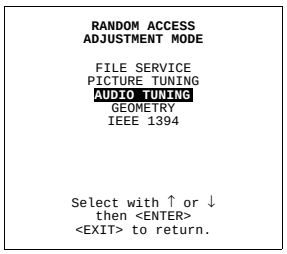
- Start up
- Volume, Balance, Bass and Treble
- Mute
- Fade
- Mode
- Video - audio lock

7.4.1 Start up

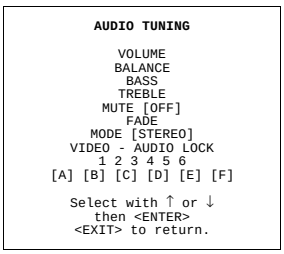
Startup

1. Push the cursor key ↑ or ↓ to highlight *Audio Tuning*. (menu 7-36)
2. Press **ENTER** to select.

   The audio tuning menu will be displayed. (menu 7-37)



Menu 7-36



Menu 7-37

7.4.2 Volume, Balance, Bass and Treble

How to adjust ?

When a sound control is selected by highlighting the item with the cursor key, a text box with a bar scale, icon and function name of the control, e.g. 'Volume' appears on the screen (only when text is ON). The length of the bar scale indicates the current memory setting for this source.

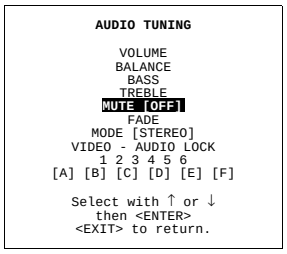
7.4.3 Mute

Purpose

To stop the sound reproduction.

How to stop sound reproduction ?

1. Push the cursor key ↑ or ↓ to highlight *Mute*. (menu 7-38)
2. Press **ENTER** to toggle between [on] or [off].



Menu 7-38

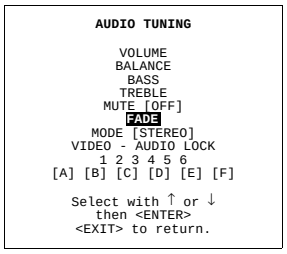
7.4.4 Fade

Purpose

Determine where the sound signals will be reproduced, internally or externally.

How to set up the fade ?

1. Push the cursor key ↑ or ↓ to highlight **Fade**. (menu 7-39)
2. Press **ENTER** to select.
3. Adjust the desired fade level. Fade can be adjusted between -15 and 15.



Menu 7-39

Fade values

Fade on -15 : no sound reproduction on the external loudspeakers, max on the internal loudspeakers with the same volume level as adjusted with the volume control.

Fade on 15 : no sound reproduction on the internal loudspeakers but max on the external loudspeakers with the same volume level as adjusted with the volume control.

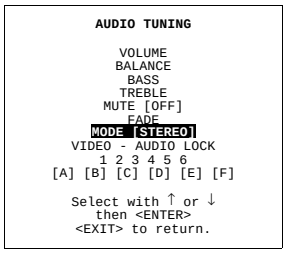
7.4.5 Mode

Purpose

To switch the sound reproduction between mono and stereo.

How to set up the sound mode?

1. Push the cursor key ↑ or ↓ to highlight *Mode*. (menu 7-40)
2. Press **ENTER** to toggle between [stereo] or [mono].



Menu 7-40

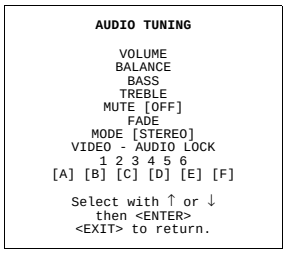
7.4.6 Video - audio lock

Purpose

An input source can be locked to an audio input.

How to lock the input source to an audio source?

1. Push the cursor key ↑ or ↓ to highlight the first input source. (menu 7-41)
2. Press ENTER to scroll the associated audio input between [A], [B] or [C].
3. Push the cursor key ← or → to highlight another input source.
4. Press ENTER to scroll between [A], [B] or [C].
5. Continue for the other inputs in the same way.



Menu 7-41

7.5 Geometry

Overview

- Introduction
- Geometry start up
- Shift
- Size
- Side Keystone
- Blanking
- Aspect Ratio
- Options

7.5.1 Introduction

Introduction

An adjustment can be done as follow :

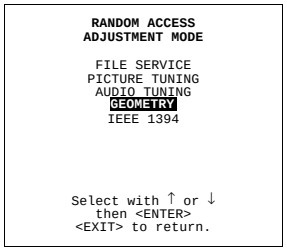
1. Using the cursor key to adjust
2. Entering the value with the digit keys. Therefore, press **ENTER** to select the indicated value and enter the desired value with the digit keys. Press **ENTER** to confirm the entered value.

7.5.2 Geometry start up

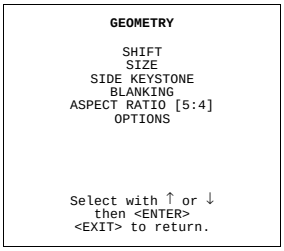
Start up

1. Push the cursor key ↑ or ↓ to highlight *Geometry*. (menu 7-42)
2. Press **ENTER** to select.

   The geometry menu will be displayed. (menu 7-43)



Menu 7-42



Menu 7-43

7.5.3 Shift

What can be done ?

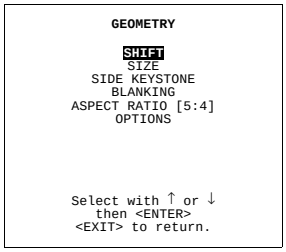
The image can be shifted in a horizontal or vertical direction.

How to shift the image ?

1. Push the cursor key ↑ or ↓ to highlight *Shift*. (menu 7-44)
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to shift the image in a vertical direction.
   Push the cursor key ← or → to shift the image in a horizontal direction.
   Note: *The default value for the shift is 0.*

   Shifting in a vertical direction : when the shift value is positive, the image is shifted upwards, when the value is negative, the image is shifted downwards.

   Shifting in a horizontal direction : when the shift value is positive, the image is shifted to the right, when the value is negative, the image is shifted to the left.



Menu 7-44

7.5.4 Size

What can be done ?

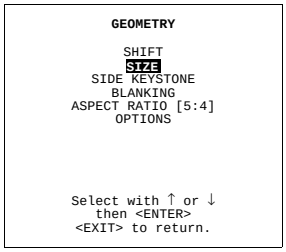
The size can be adjusted in a vertical or horizontal way.

When adjusting the vertical size, The upper side of the image is fixed (table and ceiling mounted configurations) and only the lower side can be moved to its exact position.

When adjusting the horizontal size, the left side of the image is fixed and only the right side can be moved to its exact position.

Size adjustment

1. Push the cursor key ↑ or ↓ to highlight *Size*. (menu 7-45)
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to size the image in a vertical direction.
   Push the cursor key ← or → to size the image in a horizontal direction.



Menu 7-45

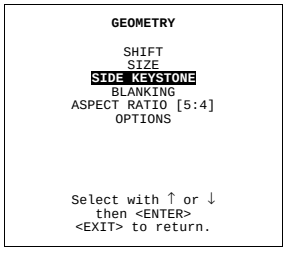
7.5.5 Side Keystone

What can be done ?

The side keystone adjustment is used to align the image if the projector is mounted at a non standard projector angle.

Aligning the keystone.

1. Push the cursor key ↑ or ↓ to highlight *Side keystone*. (menu 7-46)
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to adjust the keystone of the image.
   When the upper part of the image is wider than the lower part of the image, push the cursor key ←. The number indication below the bar scale will be negative.
   When the upper part of the image is smaller than the lower part of the image, push the cursor key →. The number indication below the bar scale will be positive.



Menu 7-46

7.5.6 Blanking

What can be done ?

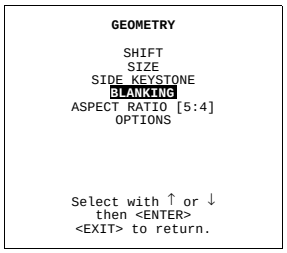
Blanking adjustments affect only the edges of the projected image and are used to frame the projected image on to the screen and to hide or black out unwanted information (or noise). A '0' on the bar scale indicates no blanking.

Which blanking adjustments are available ?

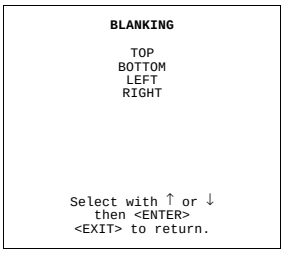
- top blanking
- bottom blanking
- left blanking
- right blanking

Adjusting the blanking.

1. Push the cursor key ↑ or ↓ to highlight *Blanking*. (menu 7-47)
2. Press **ENTER** to display the blanking menu. (menu 7-48)
3. Push the cursor key ↑ or ↓ to highlight the desired blanking.
4. Press **ENTER** to start up the chosen blanking.
5. Use the cursor keys to adjust the blanking.



Menu 7-47



Menu 7-48

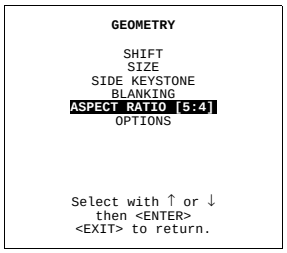
7.5.7 Aspect Ratio

Purpose

To force the projector in a typical aspect ratio. E.g. projecting a 4:3 image in a 16:9 aspect ratio.

How to set up the desired aspect ratio ?

1. Push the cursor key ↑ or ↓ to highlight *Aspect Ratio*. (menu 7-49)
2. Press **ENTER** to scroll between [5:4] or [4:3] or [16:9].



Menu 7-49

7.5.8 Options

What is possible ?

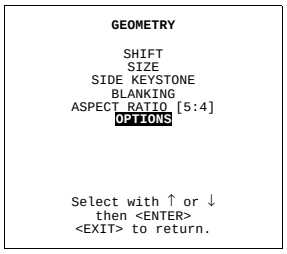
Within the Geometry options menu, it is possible to set up the side keystone for the active file only or for all files equal.

[No] = keystone has to be adjusted file per file.

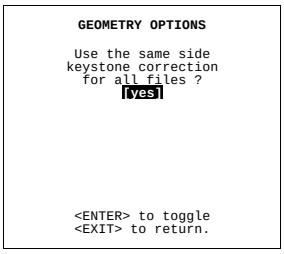
[Yes] = keystone correction the same for all installed files.

Set up of the geometry options.

1. Push the cursor key ↑ or ↓ to highlight *Options*. (menu 7-50)
2. Press **ENTER** to display the *Geometry options* menu. (menu 7-51)
3. Press **ENTER** to toggle between [Yes] or [No].
4. Press **EXIT** to return to the *Geometry* menu.



Menu 7-50



Menu 7-51

7.6 IEEE 1394

Overview

- Starting up the controls
- IEEE 1394 Control
- Camcorder Control

7.6.1 Starting up the controls

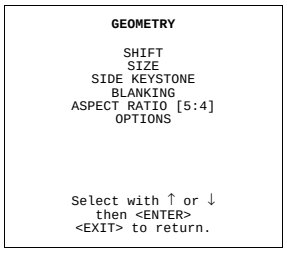
Purpose of the IEEE 1394 controls

To start decoding and displaying DV sources which do not fully implement AV/C protocol preventing the automatic start of video decoding.

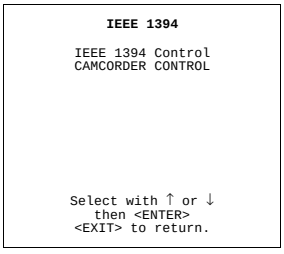
Start up

1. Push the cursor key ↑ or ↓ to highlight *IEEE*. (menu 7-52)
2. Press **ENTER** to select.

   The IEEE 1394 menu will be displayed. (menu 7-53)



Menu 7-52



Menu 7-53

7.6.2 IEEE 1394 Control

Overview

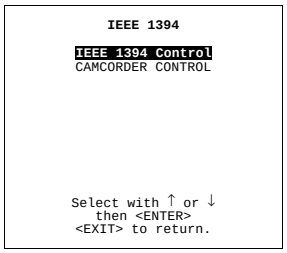
- Start up
- IEEE 1394 Setup
- Audiodecoding

7.6.2.1. Start up

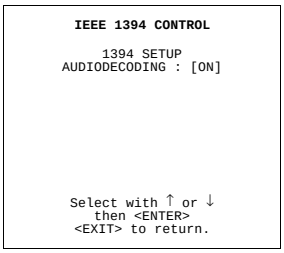
Start up

1. Push the cursor key ↑ or ↓ to highlight *IEEE 1394 CONTROL*. (menu 7-54)
2. Press **ENTER** to select.

   The IEEE 1394 Control menu will be displayed. (menu 7-55)



Menu 7-54



Menu 7-55

7.6.2.2. IEEE 1394 Setup

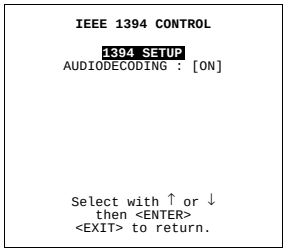
Purpose

To manually start the decoding and display of an active video channel on the bus.

How to start up ?

1. Push the cursor key ↑ or ↓ to highlight *1394 setup*. (menu 7-56)
2. Press **ENTER** to activate the setup.

   The item in the menu will get another color during the setup and returns to its normal color when the setup is executed. As customer, you cannot see more than that color change.



Menu 7-56

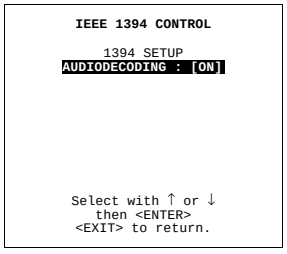
7.6.2.3. Audiodecoding

Purpose

To activate the decoding of the audio signals on the IEEE1394 bus.

How to toggle?

1. Push the cursor key ↑ or ↓ to highlight *Audiodecoding*. (menu 7-57)
2. Press **ENTER** to toggle audiodecoding between [on] or [off].



Menu 7-57

7.6.3 Camcorder Control

Purpose

To control your camcorder via the projector remote control.

Avalilable functions.

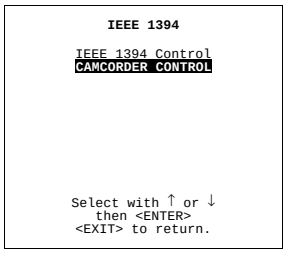
The following function are available :

- play
- play fast forward
- play slow forward
- play fast reverse
- play slow reverse
- stop pause rewind fast forward
- pause
- rewind
- fast forward

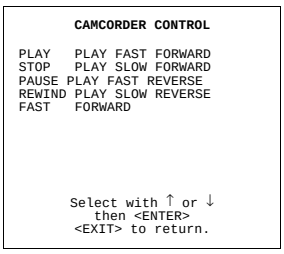
How to select a function ?

1. Push the cursor key ↑ or ↓ to highlight *Camcorder Control*. (menu 7-58)
2. Press **ENTER** to select.

   The camcorder control menus will be displayed. (menu 7-59)
3. Push the cursor key ↑ or ↓ to highlight the desired camcorder control.
4. Press **ENTER** to activate.



Menu 7-58



Menu 7-59

8. INSTALLATION MODE

Overview

- Build-up
- Start up installation mode
- Input slots
- No Signal
- Lens adjustment
- Text Box Position
- Quick Access Keys
- Start Up mode
- Network Configuration
- 800 peripheral
- Configuration
- OSD Color
- Internal Patterns
- Switching Mode
- Shutter

8.1 Build-up

Build-up of the installation mode.

The installation menu is build-up in two parts which are connected together with the 'more' item. If the desired item is not in the list of the displayed menu, select 'more' with the cursor key and push **ENTER** to display the other items in the installation menu.

8.2 Start up installation mode

Start up

1. Push the cursor key ↑ or ↓ to highlight *Installation*. (menu 8-1)
2. Press **ENTER**.

   One of the following installation mode menus will be displayed. (menu 8-2)

```
ADJUSTMENT MODE

Select a path from below :
AUTO IMAGE
RANDOM ACCESS
INSTALLATION
SERVICE
Source 01

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-1

```
INSTALLATION

INPUT SLOTS
NO SIGNAL
LENS
TEXT BOX POSITION
QUICK ACCESS KEYS
START UP MODE
NETWORK CONFIGURATION
more ...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-2

```
INSTALLATION

800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
SWITCHING MODE : [BLANKING]
SHUTTER
more ...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-3

8.3 Input slots

What can be done ?

The input configuration of the variable inputs is shown in the *Input slots* menu.

To view or the change the input configuration.

1. Push the cursor key ↑ or ↓ to highlight *Input Slots*. (menu 8-4)
2. Press **ENTER** to select.

   The input slots menu will be displayed. (menu 8-5)

```
INSTALLATION

INPUT SLOTS
NO SIGNAL
LENS
TEXT BOX POSITION
QUICK ACCESS KEYS
START UP MODE
NETWORK CONFIGURATION
more ...


Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-4

```
INPUT SLOTS

SLOT SELECTOR [Automatic]

x 1. RGB [HV&VS]
- 2. RGB [HV&VS]
- 3. VIDEO
- 4. S-VIDEO
- 5. DIGITAL INPUT
- 6. IEEE 1394


Select with ↑ or ↓
<ENTER> to toggle
<EXIT> to return.
```

Menu 8-5

The black indicated inputs are selectable and changeable. The gray indicated inputs are fix inputs and are not changeable.

The indication in front of the digit means :

x : valid signal connected to the input.

- : no valid signal connected to the input.

Possible results for the input slots.

Source	Indication
Video or S-Video	Video S-video
RGB analog	RGB-CV : separate sync is composite video on H/C input RGB-HS&VS: separate sync is horizontal and vertical sync RGB-CS : separate sync is composite sync RGB-SOG : sync on green
Component Video	Component video
IEEE 1394	IEEE1394
SDI	Digital input

What if a switcher is connected to the projector ?

If a RCVDS (switched on) or VS05 is connected to the projector, it will be also indicated on the menu by adding +800 peripheral.

If no 800 peripheral indication is made on the menu, there are still two possibilities, no RCVDS or VS05 connected or RCVDS is switched off.

When a 800 peripheral is connected to the projector, the input slots are not accessible with the cursor key to toggle their function.

8.4 No Signal

What will happen ?

If there is no signal connected to the projector,

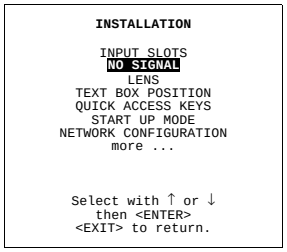
- The background color can be black or blue
- The projector can shutdown after a certain time.

8.4.1 Changing the background color

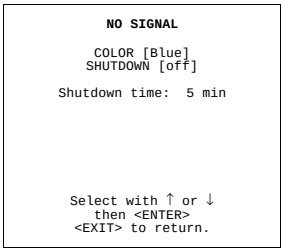
How to change ?

1. Push the cursor key ↑ or ↓ to higlight *No signal*. (menu 8-6)
2. Press **ENTER** to select.

   The no signal menu will be displayed. (menu 8-7)
3. Push the cursor key ↑ or ↓ to highlight *Color*.menu 8-7
4. Press ENTER to toggle between [blue] or [black].



Menu 8-6



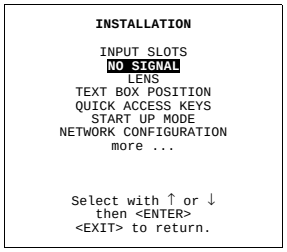
Menu 8-7

8.4.2 Changing the shutdown setting

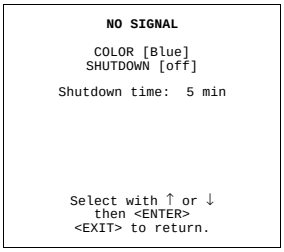
How to change ?

1. Push the cursor key ↑ or ↓ to highlight *No Signal*. (menu 8-8)
2. Press **ENTER** to select.

   The no signal menu will be displayed. (menu 8-9)
3. Push the cursor key ↑ or ↓ to highlight *Shutdown*.menu 8-9
4. Press **ENTER** to toggle between [On] or [Off].



Menu 8-8



Menu 8-9

8.4.3 Changing the Shutdown time

Range

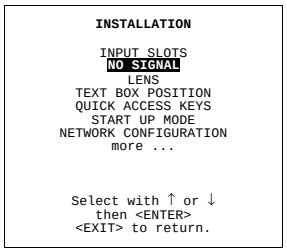
The shutdown time can be set between 5 min. and 60 min.

How to change ?

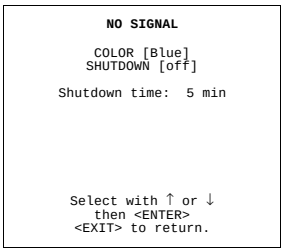
To set up the shutdown time, handle as follow:

1. Push the cursor key ↑ or ↓ to highlight *No Signal*. (menu 8-10)
2. Press **ENTER** to select.

   The no signal menu will be displayed. (menu 8-11)
3. Push the cursor key ↑ or ↓ to highlight *Shutdown Time*.menu 8-11
4. Push the cursor key ↑ or ↓ to change the digits.
   Or ,
   Enter the digits directly with the digit keys on the RCU.



Menu 8-10



Menu 8-11

8.5 Lens adjustment

What can be done ?

All lens adjustments are motorized and can be adjusted with the RCU.

The following items can be adjusted:

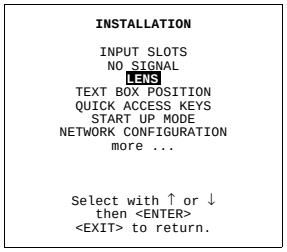
- zoom/focus
- shift

Zoom/Focus adjustment of the lens.

1. Push the cursor key ↑ or ↓ to higlight *Lens*. (menu 8-12)
2. Press **ENTER** to select.

   The adjustment pattern will be displayed.

   With the **TEXT** key it is possible to toggle between the internal adjustment pattern or the connected source.
3. Push the cursor key ↑ or ↓ to zoom and ← or → to focus the image.
   Note: *The zoom/focus function is only applied when a motorized zoom lens is mounted.*
4. When finished, press **EXIT** to return to the installation menu or press **ENTER** to go to the shift function.



Menu 8-12

Shift adjustment of the lens.

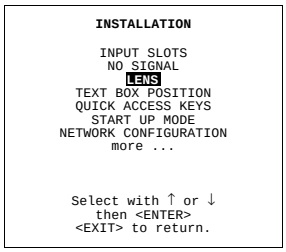
1. Push the cursor key ↑ or ↓ to higlight *Lens*. (menu 8-13)
2. Press **ENTER** to select.

   The adjustment pattern will be displayed.

   With the **TEXT** key it is possible to toggle between the internal adjustment pattern or the connected source.
3. Push the cursor key ↑ or ↓ to shift the image up and down and ← or → to shift the image left or right.
   Note: *The lens can be shifted in a range of :*

   vertical shift : - 2 mm to + 20 mm

   horizontal shift : - 5 mm to + 5 mm
4. When finished, press **EXIT** to return to the installation menu or press **ENTER** to go to the zoom/focus function.



Menu 8-13

8.6 Text Box Position

What can be done with the text box?

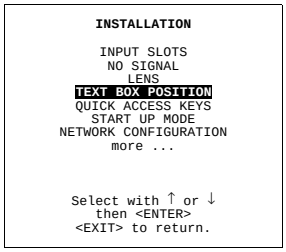
The text box position can be changed from bottom right to automatic, dependig the aspect ratio the projector chooses a position, to center, always in the center of the image.

How to change the position?

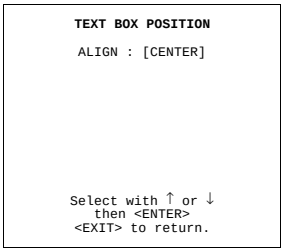
1. Push the cursor key ↑ or ↓ to highlight *Text Box Position*. (menu 8-14)
2. Press **ENTER** to select.

   The text box menu will be displayed. (menu 8-15)
3. Align will be selected. Press **ENTER** to toggle between [Bottom Right], [Automatic] or [Center].

[Bottom Right]	text box will always be displayed in the bottom rigth corner.
[Automatic]	the text box position depends on the aspect ratio.
[Center]	the text box position will always be in the middle of the image.



Menu 8-14



Menu 8-15

8.7 Quick Access Keys

8.7.1 What are Quick Access Keys?

What can be done with these keys?

The function keys on top of the RCU can be associated with an adjustment item in one of the adjustment menus. Each item which is not password protected or does not have a key on the RCU can beassociated to a function key. This key allows then a quick access to the adjustment function.

Factory programmed functions.

F1	color depth
F2	noise reduction
F3	configuration
F4	lens adjust zoom/focus
F5	lens adjust shift

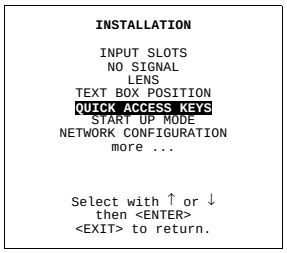
8.7.2 Getting an overview

Overview

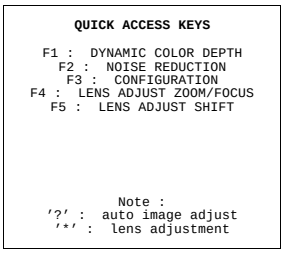
To get an overview, handle as follow :

1. Push the cursor key ↑ or ↓ to highlight *Quick Access Keys*. (menu 8-16)
2. Press **ENTER** to select.

   The Quick Access Keys menu will be displayed. (menu 8-17)



Menu 8-16



Menu 8-17

8.7.3 Programming the Quick Access Keys.

How to program?

1. Scroll through the menus until the desired menu is active.
2. Push the desired function key for 3 seconds.

   The message 'Quick access to this menu with Fx', where x is the digit of the selected function key. If the selected menu is not a valid menu for the quick access keys the next message will be displayed : "Quick access to this menu impossible".

8.8 Start Up mode

What can be done?

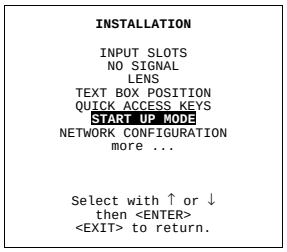
1. During start up, the projector can show first the identification screen or a blank screen.
2. The projector can start up with auto power. The projector starts up in the same power condition as it was before power supply was interrupted.

8.8.1 Start up with identification screen

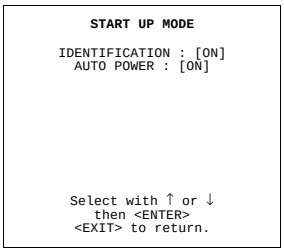
How to set up?

1. Push the cursor key ↑ or ↓ to highlight *Start Up Mode*. (menu 8-18)
2. Press **ENTER** to display the start up mode menu. (menu 8-19)
3. Push the cursor key ↑ or ↓ to highlight *Identification*.
4. Press **ENTER** to toggle between [ON] or [OFF].

[ON]	projector identification will be displayed during start up.
[OFF]	a blank screen will be displayed during start up



Menu 8-18



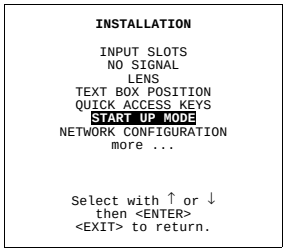
Menu 8-19

8.8.2 Start up auto power

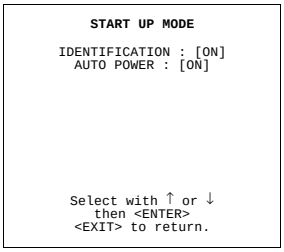
Set up the auto power mode.

1. Push the cursor key ↑ or ↓ to highlight *Start Up Mode*. (menu 8-20)
2. Press **ENTER** to display the start up mode menu. (menu 8-21)
3. Push the cursor key ↑ or ↓ to highlight *Auto Power*.
4. Press **ENTER** to toggle between [ON] or [OFF].

[ON]	projector starts up as it was switched off before. When the projector was in standby before it was switched off, it starts up in standby. When it was switched off with full power, it starts up with full power.
[OFF]	projector always starts up in standby mode.



Menu 8-20



Menu 8-21

8.9 Network Configuration

What can be done?

The necessary network addresses (configuration) can be entered so that the projector can be connected to a LAN (local area ne

DHCP

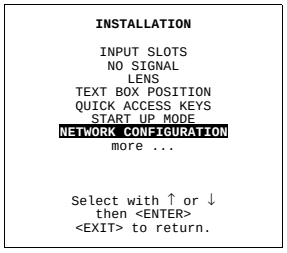
Dynamic host configuration protocol

Set up the network configuration

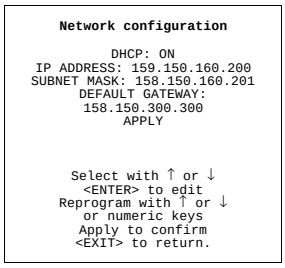
To set up the network configuration, follow the next procedure

1. Push the cursor key ↑ or ↓ to highlight *Network Configuration*. (menu 8-22)
2. Press **ENTER** to display the network configuration menu. (menu 8-23)
3. Set DHCP on or off (contact your network responsible for the correct setting in your environement).

DHCP on	DHCP server assigned an IP address to the client (network projector).
DHCP off	the client has to fill out the IP address, the subnet mask and the default gateway.



Menu 8-22

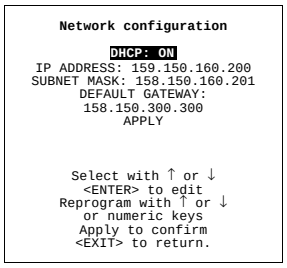


Menu 8-23

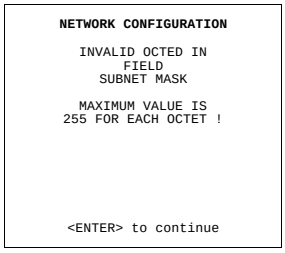
Entering the necessary addresses

1. Select the IP address with the cursor keys. (menu 8-24)
2. Enter or reprogramm the address with the numeric keys (contact your network responsible for the correct address).
   Note: *An address contains 4 octets with a maximum value of 255, separated by a bullet.*
3. Repeat the above steps for the subnet mask and the gateway.
4. Select *APPLY* and press **ENTER** to install the entered addresses.

   If a wrong value for an octet is entered, the following error message will be displayed to indicate where the error is located. Example of message : "Invalid octet in field Subnet mask, Maximum value is 255 for each octet ! " (menu 8-25)



Menu 8-24



Menu 8-25

8.10 800 peripheral

The following thinks can be installed for a 800 peripheral:

- Defining the Output module of the RCVDS05
- Defining the Infrared Communication protocol

8.10.1 Defining the Output module of the RCVDS05

Which module are available?

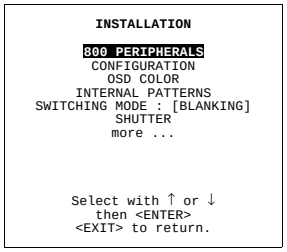
When a RCVDS05 is connected to the projector, the type of output module of this RCVDS05 has to be defined in the 800 peripheral menu.

- standard output module
- 5 cable output module

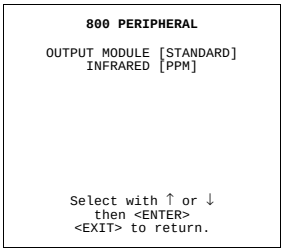
Defining the output module

To define the output modul:

1. Push the cursor key ↑ or ↓ to highlight *800 Peripheral*. (menu 8-26)
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to highlight *Output module*. (menu 8-27)



Menu 8-26



Menu 8-27

8.10.2 Defining the Infrared Communication protocol

Which protocols are available?

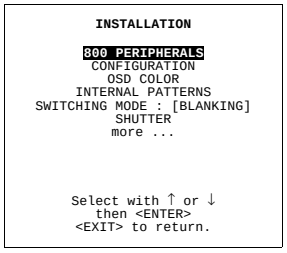
When a peripheral is connected to the 'Comm Port', the communication can be in PPM or RC5.

The type of communication can be set to :

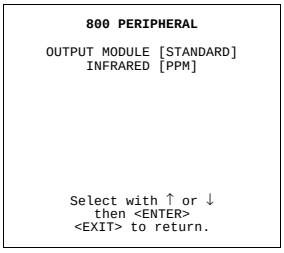
- PPM
- RC5

Defining the communication protocol.

1. Push the cursor key ↑ or ↓ to highlight *800 Peripheral*. (menu 8-28)
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to highlight *Infrared*. (menu 8-29)
4. Press **ENTER** to select.
5. Press **ENTER** to toggle between [PPM] or [RC5].



Menu 8-28



Menu 8-29

8.11 Configuration

What can be done?

The way of physical installation of the projector can be defined to the projector.

The following installation configurations are possible:

- front/table
- front/ceiling
- rear/table
- rear/table

Set up the Correct Configuration

1. Push the cursor key ↑ or ↓ to highlight *Configuration*. (menu 8-30)
2. Press **ENTER** to select.

   The configuration menu will be displayed.

```
INSTALLATION

800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
SWITCHING MODE : [BLANKING]
SHUTTER
more ...


Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-30

For more information, see Configuration, page 10.

8.12 OSD Color

What can be done?

The highlighted items on the menus can be displayed in red, green or yellow.

How to change this color setting?

1. Push the cursor key ↑ or ↓ to highlight *OSD Color*. (menu 8-31)
2. Press **ENTER** to select.

   The OSD color menu will be displayed. (menu 8-32)
3. Push the cursor key ↑ or ↓ to highlight a color.
4. Press **ENTER** to select.

```
INSTALLATION

800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
SWITCHING MODE : [BLANKING]
SHUTTER
more ...


Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-31

```
OSD COLOR
HIGHTLIGHTED ITEM

RED
GREEN
YELLOW


Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

Menu 8-32

8.13 Internal Patterns

What can be done with these internal patterns?

The projector is equipped with different internal patterns which can be used for measurment purposes.

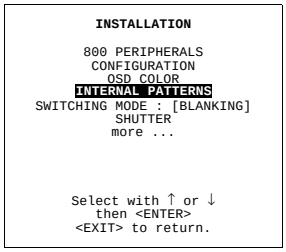
Available patterns

- Outline
- Hatch
- Color bars
- Multiburst
- Checker board
- Page Char
- Alpha numeric char
- Character sets
- Backgrounds

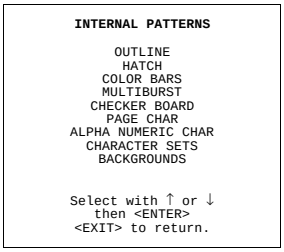
How to select an internal patterns?

1. Push the cursor key ↑ or ↓ to highlight *Internal Patterns*. (menu 8-33)
2. Press **ENTER** to select.

   The internal patterns menu will be displayed. (menu 8-34)



Menu 8-33



Menu 8-34

8.14 Switching Mode

What can be set up with the switching mode?

When switching from one source to another, the time between the switch off of the first source and the upcoming new source can be filled up with a blank image or with a freeze of the last projected image.

How to install the switching mode?

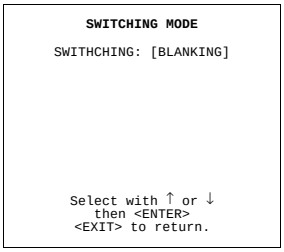
To install the switching mode, follow the next procedure :

1. Push the cursor key ↑ or ↓ to highlight *Switching mode*. (menu 8-35)
2. Press **ENTER** to select.

   The switching mode menu will be displayed. (menu 8-36)
3. Select '*Switching*' and press **ENTER** to toggle between [blanking] or [freeze].

blanking	by switching from one source to another the image will be blanked out and the installed color in the item 'No Signal' will be displayed.
freeze	by switching from one source to another the last projected image will be frozen until the new source is displayed.

Menu 8-35



Menu 8-36

8.15 Shutter

What should be done?

When a shutter is installed in the projector, the presence of it should be indicated in the shutter menu before this shutter can work.

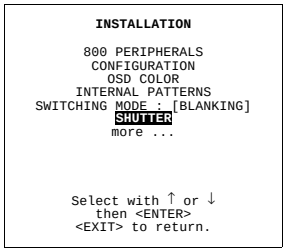
How to activate the shutter?

To announce the present of a shutter, handle as follow :

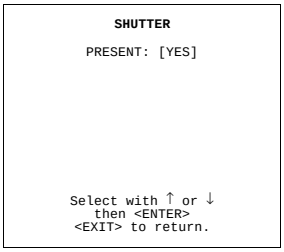
1. Push the cursor key ↑ or ↓ to highlight *Shutter*. (menu 8-37)
2. Press **ENTER** to select.

   The shutter menu will be displayed. (menu 8-38)
3. Press **ENTER** to toggle between [YES] or [NO].

YES	shutter available and is activated.
NO	no shutter available.



Menu 8-37



Menu 8-38

9. SERVICE MODE

9.1 Build-up

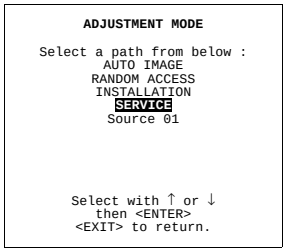
Build-up

The service menu is build-up in two parts which are connected together with the 'more' item. If the desired item is not in the list of the displayed menu, select 'more' with the cursor key and push ENTER to display the other items in the service menu.

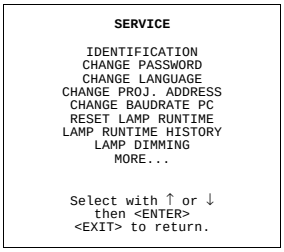
9.2 Start up

Start up

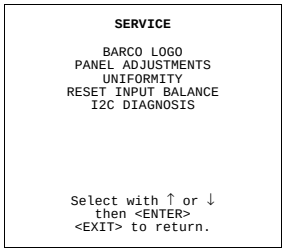
1. Push the cursor key ↑ or ↓ to highlight *Service*. (menu 9-1)
2. Press **ENTER** to display the service mode menu. (menu 9-2)



Menu 9-1



Menu 9-2



Menu 9-3

Some items in the Service mode are password protected (when the password function is active). Enter the password to continue. All other password protected items are now available if you stay in the adjustment mode.

9.3 Identification

What can be seen on the identification screen?

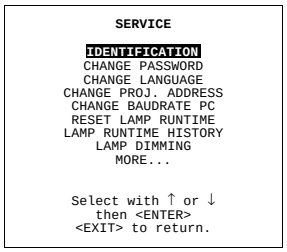
The identification screen shows the general information of the projector.

The following items will be displayed:

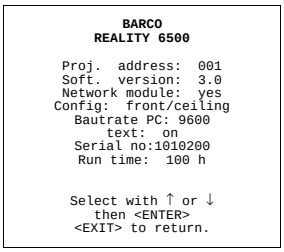
- Type of projector: BARCOREALITY SIM6
- Software version
- Network module: yes
- Proj. address: To change the address of the projector, see Box content, page 5
- Installation:
  - front/ceiling
  - front/table
  - rear/ceiling
  - rear/table
- Baud rate: transfer speed for communication with an IBM PC (or compatible) or MAC. The baud rate of the projector must be the same as the baud rate of the connected computer. When there is a difference, consult 'Change Baudrate PC' in this chapter.
- Projector Run Time: gives the total run time since the first start up. All projectors leave the factory with a run time of approximately 24 hours.
- Projector Serial number: indicates the fabrication number of the projector. This number can be useful when calling for technical assistance.

Start Up

1. Push the cursor key ↑ or ↓ to highlight *Identification*. (menu 9-4)
2. Press **ENTER** to display the Identification screen. (menu 9-5)



Menu 9-4



Menu 9-5

9.4 Change Password

How to enable or disable the password function ?

This item is password protected when the password strap is installed.

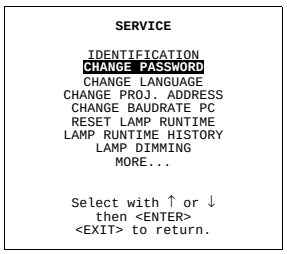
The password function is enabled when the password strap on the controller module is installed. Consult an authorised Barco service technician to change the strap position.

How to change the password ?

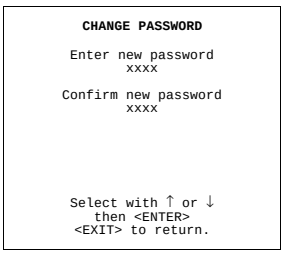
1. Push the cursor key ↑ or ↓ to highlight *Change Password*. (menu 9-6)
2. Press **ENTER** to display the *Change Password* menu. (menu 9-7)

   4 '_' characters are displayed. A new pasword can be entered with the digit keys of the RCU or local keypad. Everytime a digit is entered, a 'X' appears on the screen. The confirm new pasword is still grayed out.
3. Press **ENTER**, the confirm new password item becomes active. Press **EXIT** if no changes have to be made.
4. 4 'x' characters are displayed in the confirm new pasword area. Key in your password again with the digit keys of the RCU or the local keypad.
5. Press **ENTER**.

   If the confirm new password entery is the same as the entered new password, the password is changed.



Menu 9-6



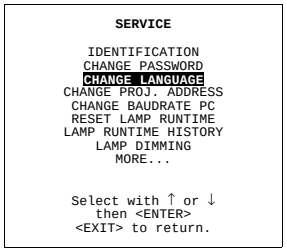
Menu 9-7

9.5 Change Language

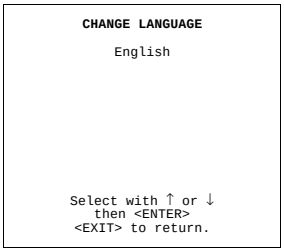
Start up

1. Push the cursor key ↑ or ↓ to higlight *Change Language*. (menu 9-8)
2. Press **ENTER** to display the *Change Language* menu. (menu 9-9)
3. Push the cursor key ↑ or ↓ to highlight the desired language.
4. Press **ENTER** to change the language.

   Available languages: English



Menu 9-8



Menu 9-9

9.6 Change Projector Address

What can be changed?

Within the Change password address item, the following items can be changed:

- projector address
- common address

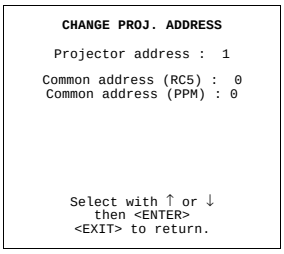
9.6.1 Start up

Start up

1. Push the cursor key ↑ or ↓ to higlight *Change Projector Address*. (menu 9-10)
2. Press **ENTER** to select.

   The Change Projector Address menu will be displayed. (menu 9-11)

Menu 9-10



Menu 9-11

9.6.2 Projector Address

How to change the projector address?

1. Push the cursor key ↑ or ↓ to higlight *Projector Address*. (menu 9-12)
2. Press **ENTER** to select.

   The actual address is filled in.

   The first digit is highlighted.

```
CHANGE PROJ. ADDRESS

Projector address :  1

Common address (RC5) :  0
Common address (PPM) : 0




Select with ↑ or ↓
   then <ENTER>
<EXIT> to return.
```

Menu 9-12

How to enter the new projector address?

1. Enter the digits with the digit keys on the RCU or local keypad.
   Or ,
   push the cursor keys ← or → to select a digit and change the value by pushing the cursor key ↑ or ↓ until the new value is reached.

Continue with the other digits on the same way. The individual address must be between 0 and 255.

9.6.3 Common Address

How to change a common address?

1. Push the cursor key ↑ or ↓ to highlight the active *Common Address*. (menu 9-13)
2. Press **ENTER** to select.

```
CHANGE PROJ. ADDRESS

Projector address :  1

Common address (RC5) :  0
Common address (PPM) : 0




Select with ↑ or ↓
   then <ENTER>
<EXIT> to return.
```

Menu 9-13

Entering the new common address.

1. Enter with the digit keys on the RCU or the local keypad
   Or ,
   pushing the cursor key ↑ or ↓ until the new value is reached.

Only addresses between 0 and 1 are valid.

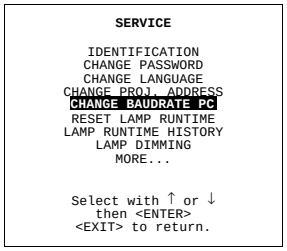
9.7 Change Baudrate PC

Start Up

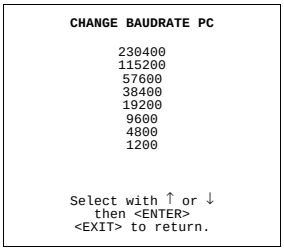
1. Push the cursor key ↑ or ↓ to highlight *Change Baudrate PC*. (menu 9-14)
2. Press **ENTER** to display the *Change Baudrate PC* menu. (menu 9-15)

   The actual baudrate will be highlighed.

   The following baud rates are available : 230400/115200/57600/38400/19200/9600/4800/1200
3. Push the cursor key ↑ or ↓ to higlight the desired baudrate.
4. Press **ENTER** to select.



Menu 9-14



Menu 9-15

9.8 Reset Lamp Runtime

When is it allowed?

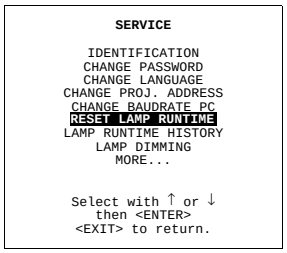
Reset lamp run time is only allowed when a new lamp is installed.

Start up

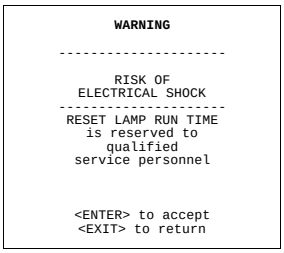
1. Push the cursor key ↑ or ↓ to highlight Reset Lamp Run Time. (menu 9-16)
2. Press **ENTER**.

   The following warning will be displayed :

   Risk of electrical shock. Reset lamp run time is reserved to qualified service personnel. If you are not qualified, press **EXIT** to cancel the reset operation. (menu 9-17)



Menu 9-16



Menu 9-17

9.9 Lamp Run time History

What can be done?

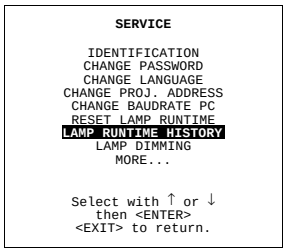
Getting an overview of the different lamp run times

Start Up

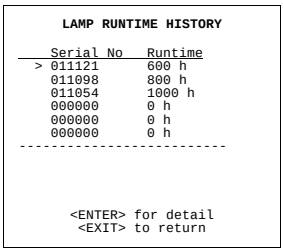
1. Push the cursor key ↑ or ↓ to higlight *Lamp Run Time History*. (menu 9-18)
2. Press **ENTER** to display the *Lamp Run Time overview*. (menu 9-19)

   A listing with the lamp serial number and the corresponding run time will be displayed.

   The actual installed lamp will be marked.
3. Press **ENTER** to return to the service mode selection menu.



Menu 9-18



Menu 9-19

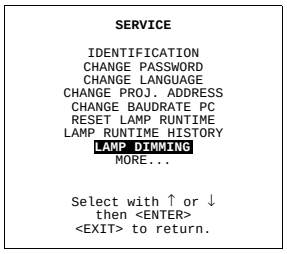
9.10 Lamp Dimming

What can be done?

The lamp can be dimmed via the lamp dimming feature.

Start Up

1. Push the cursor key ↑ or ↓ to highlight *Lamp Dimming*. (menu 9-20)
2. Press **ENTER** to select.
3. Push the cursor key ← or → to dim the lamp.



Menu 9-20

A projector starts always with full lamp power.

9.11 BARCO Logo

What can be done?

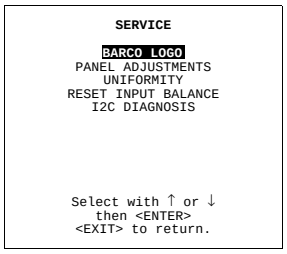
The BARCO logo can be added to the image, in overlay or on a background, on any place on the screen.

How to add the BARCO logo or to change the setting?

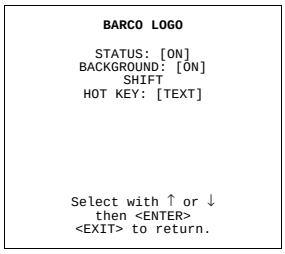
1. Push the cursor key ↑ or ↓ to highlight *BARCO logo*. (menu 9-21)
2. Press **ENTER** to select.

   The *BARCO logo* menu will be displayed. (menu 9-22)

   The actual settings will be displayed. Within this menu, three toggle settings and a shift control are available.



Menu 9-21



Menu 9-22

Available Settings

- STATUS [ON/OFF]
  ON : BARCO logo will be displayed on the screen.
  OFF: NO BARCO logo displayed on the screen.
- BACKGROUND [ON/OFF]
  ON: BARCO logo will be displayed on a black background.
  OFF: BARCO logo will be displayed without any background.
- SHIFT
  By pushing the cursor key ↑, ↓, ← or →, the BARCO logo can be positioned anywhere on the screen.
- HOT KEY [TEXT/OFF]
  OFF: no key on the RCU is used to display the BARCO logo.
  TEXT: the TEXT key on the RCU is used to display or to remove the BARCO logo with one single push on this key (only in operational mode).

9.12 Panel Adjustments

Changing these settings may seriously affect the performance of the projector.

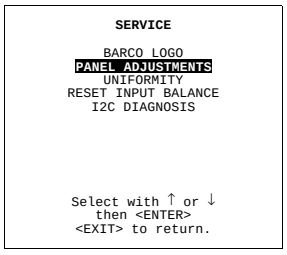
All panel adjustments are factory adjusted. If not really necessary, do not touch any of these adjustments. They are useful when a new panel is installed.

Start Up

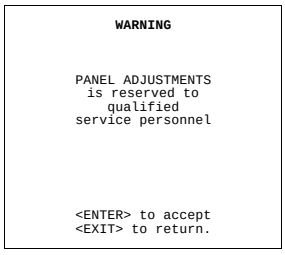
1. Push the cursor key ↑ or ↓ to highlight *Panel Adjustments*. (menu 9-23)
2. Press **ENTER** to select.

   The following warning will be displayed : (menu 9-24)

   Panel Adjustments is reserved to qualified service personnel. If you are not qualified, press **EXIT** to cancel the panel adjustments.



Menu 9-23



Menu 9-24

9.13 Uniformity

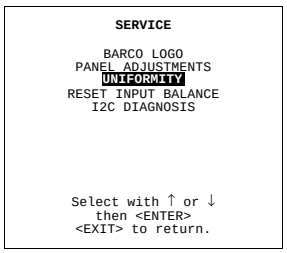
Changing these settings may seriously affect the performance of the projector.

Start Up

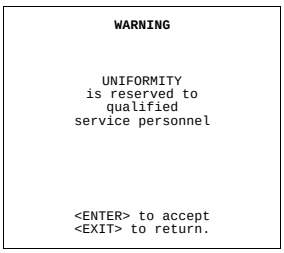
1. Push the cursor key ↑ or ↓ to highlight *Uniformity*. (menu 9-25)
2. Press **ENTER** to select.

   The following warning will be displayed : (menu 9-26)

   Uniformity is reserved to qualified service personnel. If you are not qualified, press EXIT to cancel the panel adjustments.



Menu 9-25



Menu 9-26

9.14 Preset Input Balance

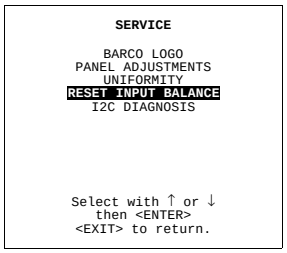
Changing these settings may seriously affect the performance of the projector.

Start Up

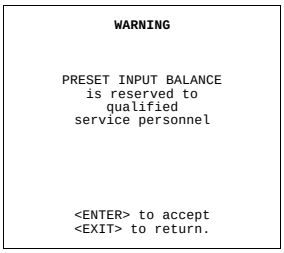
1. Push the cursor key ↑ or ↓ to highlight *Preset Input Balance*. (menu 9-27)
2. Press **ENTER** to select.

   The following warning will be displayed : (menu 9-28)

   Preset input balance is reserved to qualified service personnel. If you are not qualified, press EXIT to cancel the panel adjustments.



Menu 9-27



Menu 9-28

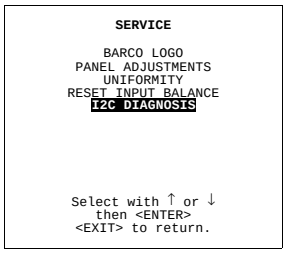
9.15 I2C Diagnoses

What can be done?

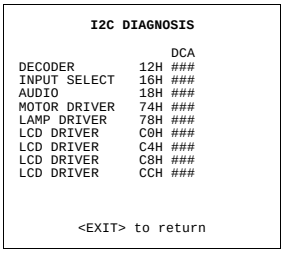
This menu gives an overview of the correct working of the I²C controlled IC's.

How to start up the I2C diagnoses?

1. Push the cursor key ↑ or ↓ to highlight *I2C Diagnoses*. (menu 9-29)
2. Press **ENTER** to display the overview. (menu 9-30)



Menu 9-29



Menu 9-30

A. STANDARD SOURCE SET UP FILES

A.1 Table overview

Table overview

The following standard source files are pre-programmed in the projector.

Name[1]	Resolution[2]	Fvert Hz[3]	FHor kHz[4]	Fpix MHz[5]	Ptot[6]	Pact[7]	Ltot[8]	Lact[9]
1600_48V	1600x600i	48,040	62,500	135,000	2160	1600	651	600
1600_60V	1600x1200	60,000	75,000	162,000	2160	1600	1250	1200
1600_65V	1600x1200	65,000	81,250	175,500	2160	1600	1250	1200
1600_70V	1600x1200	70,000	87,500	189,000	2160	1600	1250	1200
8514_A	1024x384i	43,479	35,522	44,900	1264	1024	409	384
CGA	640x200i	59,924	15.700	14.318	912	640	262	200
COMPUSC4	1024x480i	29,945	30,694	39,779	1296	1024	512	480
ED	735x480	59,943	31,470	28,638	910	735	525	480
EGA	640x350	59,702	21,851	16,257	744	640	366	350
EWS_50	1280x1024	50,000	52,350	87,948	1680	1280	1047	1024
EWS_60	1280x1024	60,000	63,900	107,352	1680	1280	1065	1024
EWS_60V	1280x1024	60,282	63,657	110,000	1728	1280	1056	1024
EWS_72	1280x1024	72,000	76,968	130,076	1690	1280	1069	1024
EWS_75	1280x1024	75,025	79,976	135,000	1688	1280	1066	1024
FMR	640x400i	42,323	36,440	28,570	784	640	431	400
FMTO_2	640x400	55,370	24,370	21,056	864	640	440	400
HD_1080i	1920x540i	30,000	33,750	74,250	2200	1920	562	540
HD720P	1280x720	60,000	45,000	74,250	1650	1200	750	720
HDMAC	1252x570i	25,020	31,250	39,125	1252	1024	625	570
INTER_GR	1184x886	67,170	61,796	92,941	1504	1184	920	886
MAC_2	640x480	66,667	35,000	30,240	864	640	525	480
MAC_3	512x384	60,147	24,480	15,667	640	512	407	384
MAC_4	560_384	60,147	24,480	17,234	704	560	407	384
MAC_5	512x342	60,158	22,259	16,670	704	512	370	342
MAC_6	832x624	74,546	49,722	57,280	1152	832	667	624
MAC_7	1024x768	74,907	60,150	80,000	1330	1024	803	768

1. Name: name of file, contains the settings.
2. Resolution: image resolution, when followed by ..i means interlaced.
3. Fvert Hz: vertical frame frequency of the source
4. FHor kHz: horizontal frequency of the source
5. Fpix MHz: pixel frequency
6. Ftot : total pixels on one horizontal line.
7. Pact: active pixels on one horizontal line.
8. Ltot: total lines in one field
9. Lact: active lines in one field.

Name[1]	Resolution[2]	Fvert Hz[3]	FHor kHz[4]	Fpix MHz[5]	Ptot[6]	Pact[7]	Ltot[8]	Lact[9]
MAC_LC	640x480	66,619	34,975	31,338	896	640	525	480
MAC_POR	640x870	74,996	68,846	57,280	932	640	918	870
MUSE	1172x518i	30,000	33,750	37,125	1172	1024	563	518
MXGA_60	1152x864	60,000	54,540	60,000	1456	1152	909	864
MXGA_70	1152x864	70,000	63,630	94,500	1480	1152	909	864
MXGA_75	1152x864	75,000	67,500	75,000	1600	1152	900	864
MXGA_80	1152x864	80,000	76,640	80,000	1440	1152	958	864
MXGA_85	1152x864	85,000	77,055	121,500	1576	1152	907	864
VIDEO525	1302x239i	29,970	15,734	32,207	1302	1024	263	239
VIDEO625	1024x278i	25,000	15,625	31,984	1310	1024	313	278
PAM500	640x400	60,000	26,400	22,810	864	640	440	400
PAM800	1120x375i	44,936	36,443	50,000	1372	1120	406	375
PC98_1	640x400	56,416	24,823	21,050	848	640	440	400
PC98_2	1120x375i	39,994	32,835	47,840	1457	1120	411	375
PC98_3	1120x750	60,000	50,000	78,569	1571	1120	833	750
S1152_66	1152x900	66,004	61,846	94,500	1528	1152	937	900
S1152_76	1152x900	76,637	71,809	108,000	1504	1152	937	900
SDI_625	675x278i	25,000	15,625	13,500	864	720	313	278
SDI_525	675x240i	29,970	15,734	13,500	858	720	263	240
SG_50	1600x1200	50,000	62,500	130,313	2085	1600	1250	1200
SG_60_1	1280x1024	60,000	63,900	107,352	1680	1280	1065	1024
SG_60_2	1024x768	60,000	48,780	64,390	1320	1024	813	768
SG_60_3	960x680	60,000	43,200	54,432	1260	960	720	680
SG_60_4	1600x1200	60,000	75,000	156,375	2085	1600	1250	1200
SUNEWS67	1280x1024	67,189	71,691	117,000	1632	1280	1067	1024
SUNEWS76	1280x1024	76,107	81,130	135,000	1664	1280	1066	1024
SUNXGA60	1024x768	59,984	48,287	64,125	1328	1024	805	768
SUNXGA70	1024x768	70,041	56,596	74,250	1312	1024	808	768
SUNXGA77	1024x768	77,069	62,040	84,375	1360	1024	805	768
SUP_MAC	1024x768	60,000	48,780	63,999	1312	1024	813	768
SVGA_56V	800x600	56,250	35,156	36,000	1024	800	625	600

Name[1]	**Resolu-tion[2]**	**Fvert Hz[3]**	**FHor kHz[4]**	**Fpix MHz[5]**	**Ptot[6]**	**Pact[7]**	**Ltot[8]**	**Lact[9]**
SVGA_60V	800x600	60,317	37,879	40,000	1056	800	628	600
SVGA_72V	800x600	72,084	48,080	50,003	1040	800	667	600
SVGA_75	800x600	75,000	46,875	75,000	1056	800	625	600
SVGA_85	800x600	85,000	53,635	56,250	1048	800	631	600
SVGA_100	800x600	100,000	62,800	100,000	1056	800	628	600
VGA_72V	640x480	72,800	37,856	31,496	832	640	520	480
VGA_GR	640x480	59,941	31,469	25,175	800	640	525	480
VGA_TXT	720x400	70,087	31,469	28,322	900	720	449	400
VGA75ISO	640x480	75,000	39,375	31,500	800	640	525	480
XGA_60	1024x768	60,000	48,360	64,996	1344	1024	806	768
XGA_70	1024x768	70,000	57,050	78,044	1368	1024	815	768
XGA_70V	1024x768	69,705	56,182	74,610	1328	1024	806	768
XGA_72	1024x768	71,955	58,140	80,000	1376	1024	808	768
XGA_75	1024x768	75,781	61,080	86,000	1408	1024	806	768
XGA75_GS	1024x768	74,534	59,701	79,284	1328	1024	801	768
XGA_85	1024x768	85,000	68,680	94,500	1376	1024	808	768
XGA_100	1024x768	100,000	80,800	100,000	1368	1024	808	768

Table A-1

B. BARCO CONTROL MANAGER

B.1 General requirements

Functionality

Controlling and monitoring of the projector settings. Remote diagnostics to detect potential errors.

Computer requirements

A computer with standard web brower (Internet explorer, Netscape communicator, ...) connected to a LAN (local area network) is sufficient to run the control manager and to get access to the projector.

As Java technology (Java Applets) is used, the application is downloaded when needed and run within a web browser. Unfortunately, not all web browsers provide this possibility.

The Barco Control Manager has been successfully tested on Microsoft Windows platform (98/NT 4.0/Windows 2000) with Internet Explorer 4.0 or higher and Netscape 4.7 or higher. On other platforms and with other browsers, it should run fine when the browser supports Java Applets and supports the Java Swing library. As an alternative, when on a specific platform there is no browser supporting the above requirements, it should be possible to run the application using an Applet Viewer.

With most web browsers, it is not the web browser itself that executes the Java applet but the Java Virtual Machine (VM). E.g. for Microsoft Explorer, the latest Java VM can be found at the following URL : http://www.microsoft.com/java/vm/dl_vm40.htm

Required embedded projector software

Reality projectors	Version 1.10 or higher
Graphics projectors	Version 1.30 or higher

B.2 About the control manager

Start up

To start up the Control Manager, follow the procedure as described below :

1. Start up your web brower.
2. In the Address bar of your web brower, start typing the IP address (or nick name) of the network projector. If you've typed a similar entry before, AutoComplete lists possible matches as you type. If a suggestion in the list matches what you want to enter in that field, click the suggestion. If not, continue typing.
3. Press **ENTER** to launch you request.

   The projector acts as a webserver and returns its start up page. (image B-1)

Image B-1
Start up screen

Information on the Start Up page.

The nick name of the projector is shown in the middle of the screen. E.g. default indicated as 'Barco - projector'. Below the location of the projector, default indicated as 'Location'. This name and location can be replaced by any other name or location, see Configuration window / SettingsSettings, page 106.

B.3 Control manager Start Page

Starting up

1. Click on Enter to start up the Barco Control Manager.

   The Control Manager start page will be displayed. (image B-2)

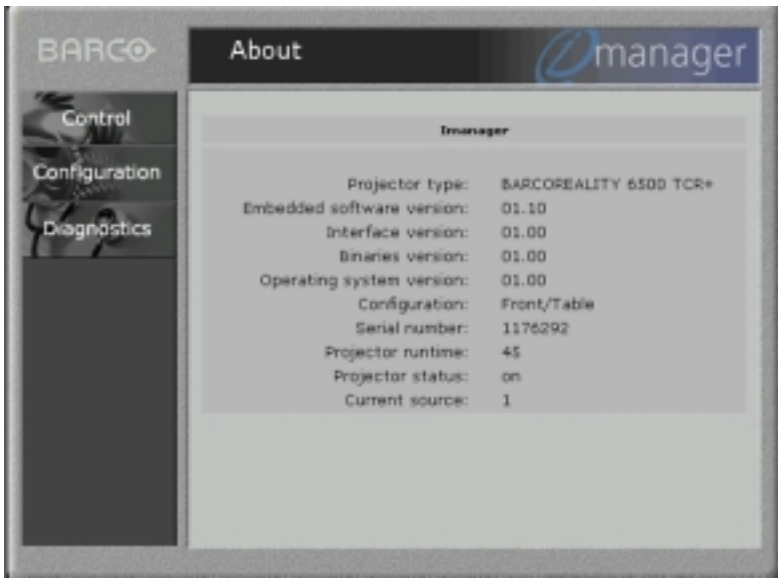


Image B-2
Control manager start page.

Using the default window

Image B-3

A Title area, displays the title of the active window.
B Menu bar with drop down menus.
C Content pane, gives information or fill out boxes or slide bars for the active window.

To select an item, click on it in the menu bar and select the desired item in the drop down menu.

B.4 Control

Overview

- Start up
- General Control
- Source
- Image Settings
- Image Enhancement
- Lens adjustment
- Geometry adjustment
- Blanking adjustment
- Audio Adjustment

B.4.1 Start up

Start up

To start up the control window :

1. Click on *Control*.

   A drop down menu will be displayed. (image B-4)

Image B-4
Control start up screen

Available items

General Control	Projector 'On' or in 'Standby'
	Pause on/off
	Freeze on/off
	Text on/off
Source	selecting the desired source
Image settings	Contrast
	Brightness
	Color
	Tint
	Sharpness
	Phase
	Gamma
Image enhancement	Noise reduction
	Dynamic Color Dept
	CTI on/off
	Decoding 'ebu' or 'ire'
Lens	Zoom
	Focus
	Shift
Geometry	Image Shift

	Size
	Aspect Ratio
	Keystone Correction
Blanking	Changing the blanking settings
Audio	Volume
	Bass
	Treble
	Balance
	Fade

Table B-2
Overview of possible adjustments

Security

When selecting an item in the control drop down menu, the security login and password will be askedimage B-5. Factory fitted user name and password are twice 'advanced'. The system administrator can change the user name and password (see Start up, page 103).

Once your password is correctly entered, all items in the control menu are available.

Image B-5
Security log in screen

B.4.2 General Control

What can be done

The following items can be swithed on or off:

- projector on/off (off is equal to standby)
- pauze on/off
- freeze on/off
- test on/off

The 800 peripheral present item is not selectable, but if such a peripheral is present the green light lights up.

How to select

1. Click on one of the buttons on the content pane.

   The indicated function can be swithed on or off. When the green light in the button lights up, the function is on image B-6.

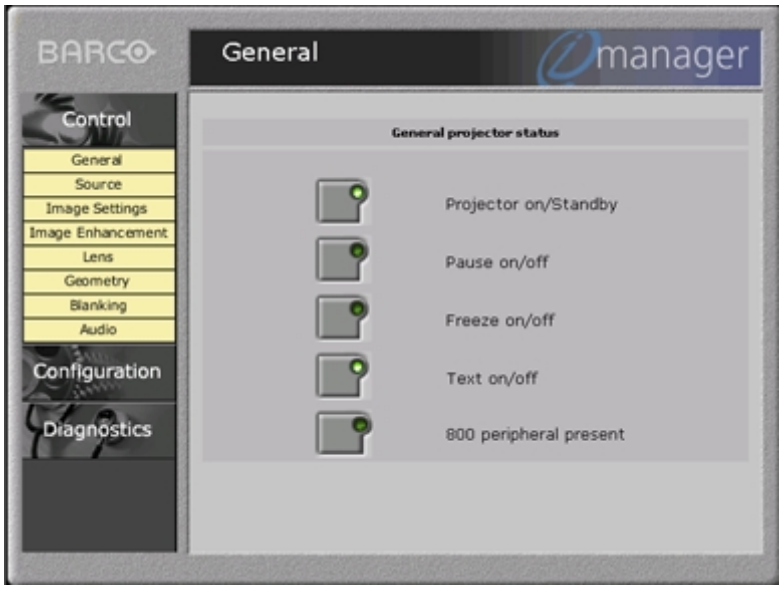


Image B-6
General control screen

B.4.3 Source

How to select

1. Click on one of the buttons on the content pane.

   The indicated source is selected. The green light in the buttom lights up to indicate that this source is selectedimage B-7. When there is no signal on the selected slot, the projector returns to previous displayed source.

   The source names next to the slot indications can be freely chosen. To enter or to change these names, go to 'Configuration' and select item 'Source'Source, page 107. (image B-7)

Image B-7
Source selection

B.4.4 Image Settings

How to change

The image settings as Contrast, Brightness, Color, Tint, Sharpness, Phase and Gamma can be changed by :

1. moving with the mouse the slide bar up or down
   Or ,
   clicking on the up or down arrow on the edges of the slide bar. (image B-8)

   A value indication for the setting will be given just below the slide bar of the adjustment.

   Changing a setting will have inmediate influence on the displayed image.

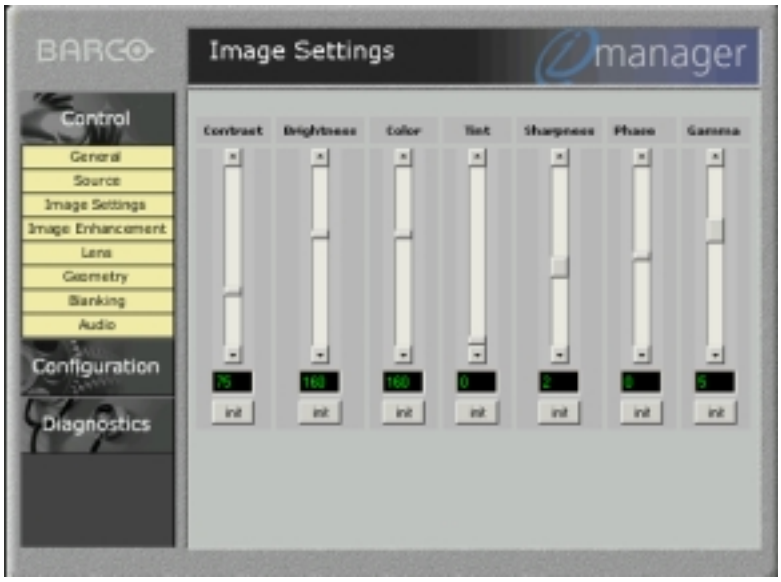


Image B-8

While changing one off these image settings with the RCU, the values indicated on the image settings web page will only be changed after 15 min.

B.4.5 Image Enhancement

Changing noise reduction & dynamic color

Noise reduction (reduces noise and pixel jitter in all video and data sources) and dynamic color depth (increases color contrast for all video and data sources) can be changed by :

1. Moving with the mouse the slide bar up or down (image B-9)
   Or ,
   Clicking on the up or down arrow on the edges of the slide bar.

   A value indication for the setting will be given just below the slide bar of the adjustment.

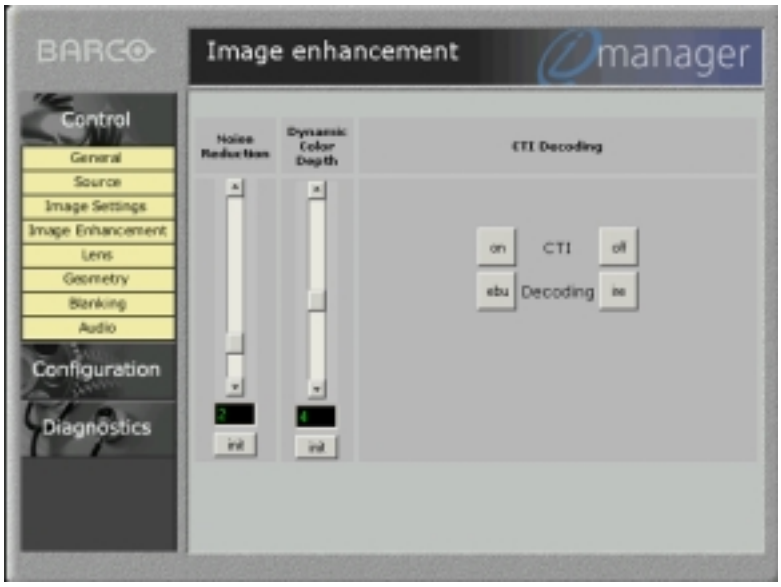


Image B-9
Image Enhancement settings

Click on init to return to the default value.

CTI

Color transient improvement

CTI and decoding toggle

1. Click with the mouse on the 'on' or 'off' button of the CTI or decoding item to switch on or off.

What is decoding

The possibility is offered to decode the NTSC video signals via the default American IRE standard or via the European EBU standard. Decoding a NTSC signal using the European EBU standard may result in a greenish tint.

While changing one off these enhanced image settings with the RCU, the values indicated on the enhanced image settings web page will only be changed after 15 min.

B.4.6 Lens adjustment

How to change

The lens adjustment can be done with lens web page .

Image B-10
Lens adjustment

Zoom	click on '+' to zoom out click on '-' to zoom in
Focus	click on 'near' for a image which is focussed in front of the screen click on 'far' for a image which is focussed behind the screen
Lens shift	click on the arrow up or down to shift the image in a vertical direction (- 2 mm to + 20 mm) click on the arrow left or right to shift the image in a horizontal direction (- 5 mm to + 5 mm)

B.4.7 Geometry adjustment

What can be adjusted

Shift, Size and Keystone can be adjusted.

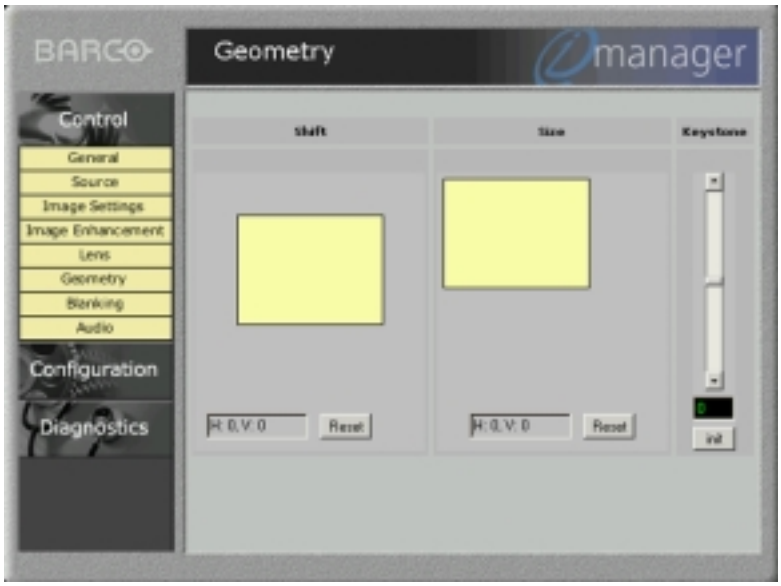


Image B-11
Geometry adjustment

Shift adjustment

1. Click and drag the yellow screen in the direction you want to shift the image (steps of 8 pixels). The black screen indicates its initial position. The shift values are given in a text box below the shifted image.
   Or ,
   Click once with the mouse on the shift screen and use the cursor keys on the keyboard to shift the image (steps of 1 pixel). The black screen indicates its initial position. The shift values are given in a text box below the shifted image.

To return to the default position, click on Reset.

Size adjustment

The size can be adjusted in a vertical or horizontal way.

The black screen indicates its initial position image B-11. The size values are given in a text box below the resized image. To return to the default position, click on Reset.

Vertical Size adjustment

When adjusting the vertical size, The upper side of the image is fixed (table and ceiling mounted configurations) and only the lower side can be moved to its exact position. Therefore :

1. Click on the lower side of the image and drag it up or down until its correct position is obtained (steps of 8 pixels).
   Or ,
   Click once on the size screen and use the ↑ or ↓ keys on the keyboard to resize the image (steps of 1 pixel).

Horizontal Size adjustment

When adjusting the horizontal size, the left side of the image is fixed and only the right side can be moved to its exact position. Therefore:

1. Click on the right side of the image and drag it to the left or right until its correct positionis obtained (steps of 8 pixels).
   Or ,
   Click once on the size screen and use the ← or → keys on the keyboard to resize the image (steps of 1 pixel).

Keystone adjustment

Keystone adjustment can be changed by :

1. moving with the mouse the slide bar up or down
   Or ,
   clicking on the up or down arrow on the edges of the slide bar.

   A value indication for the setting will be given just below the slide bar of the keystone adjustment.

B.4.8 Blanking adjustment

What can be done

Blanking adjustments affect only the edges of the projected image and are used to frame the projected image on to the screen and to hide or black out unwanted information (or noise).

The blanking values are given in a text box below the image. A '0' value in the text box indicates no blanking.

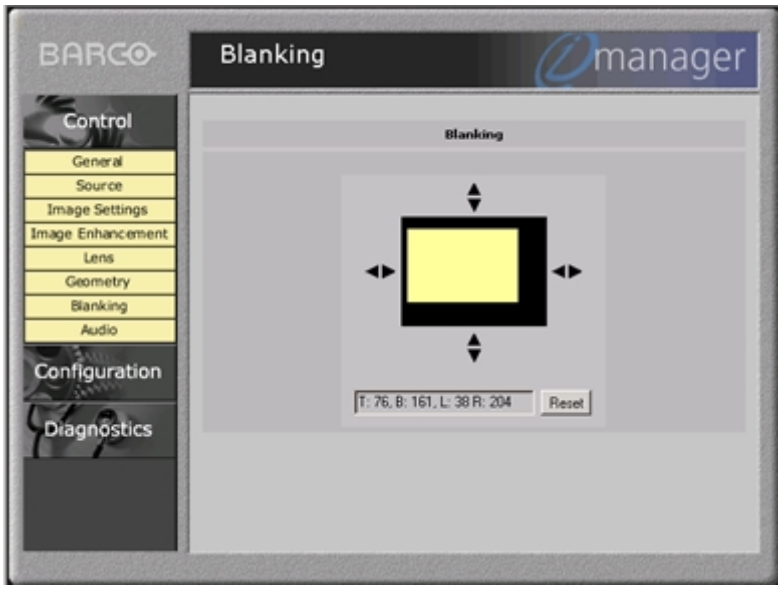


Image B-12
Blanking adjustment

How to adjust

Blanking adjustment can be adjusted by :

1. Click on a side of the image and drag up/down or left/right until the desired blanking is reached (steps of 8 pixels).
   Or ,
   Click on the arrows of the chosen side until the desired blanking is obtained (every click is one pixel).

To return to the default position, click on Reset.

B.4.9 Audio Adjustment

How to adjust

The audio settings as Volume, Bass, Treble, Balance or Fade can be changed by :

1. moving with the mouse the slide bar up or down. (image B-13)
   Or ,
   clicking on the up or down arrow on the edges of the scroll bar.

   A value indication for the setting will be given just below the scroll bar of the adjustment. Changing a setting will have inmediate influence on the produced sound

Image B-13
Audio adjustment

Click on init to return to the default value.

While changing one off these audio settings with the RCU, the values indicated on the audio settings web page will only be changed after 15 min.

B.5 Configuration

Overview

- Start up
- Mail Set up
- Security
- Data & Time
- Settings
- Source

B.5.1 Start up

Start up

To start up the configuration window :

1. Click on configuration.

   A drop down menu will be displayed. (image B-14)

Image B-14
Configuration start up screen

Avialable items

Mail set up	to configure up to 3 mail addresses for auto feedback on a pre-defined time.
Security	set up of access password for the user and changing the administrator password.
Settings	to set up the projector name, location and mail server address.
Date & time	set up date/time and time zone for your projector
Source	to enter a name or nick name for each slot. These names will be visible on the Control Source screen.

Security

When selecting an item in the configuration drop down menu, the security login and password for administrator will be asked.image B-5

Factory fitted administrator user name and password are twice 'admin'. The system administrator can change the administrator user name and password. Once your password is correctly entered, all items in the configuration menu are available.

B.5.2 Mail Set up

What can be done

3 mail addresses can be configured to send feedback about the status of the projector at different time intervals . The content of the mail can be selected during configuration of the mail setup.

Set up

To set up a mail configuration, handle as follow :

1. Select one of the headings *'Mail 1'*, *'Mail 2'* or *'Mail 3'*. (image B-15)
2. Fill out the E-mail address with an existing E-mail address.
3. Select the content options by selecting the appropiate options.
   The following options are available :
   - General Status (contains Projector type, Serial number, Software version, Configuration, Projector runtime, Lamp runtime)
   - Job log
   - Lamp Warnings
   - Advanced diagnostics (contains I²C errors)
4. Fill out the timing options.
   Select the desired timing by clicking in the drop down box next to the e-mail address box.
   The following options are possible :
   - Daily : fill out the exact hour in the at area.
   - Weekly : fill out the exact hour in the 'at' area and select a day (or days) out of the list.
   - Montly : fill out the exact hour in the 'at' area and select the day ot the month in the 'every montly' area.
5. Click 'Apply' to finish the configuration.
6. To send an E-mail inmediately, click on 'Send now'.

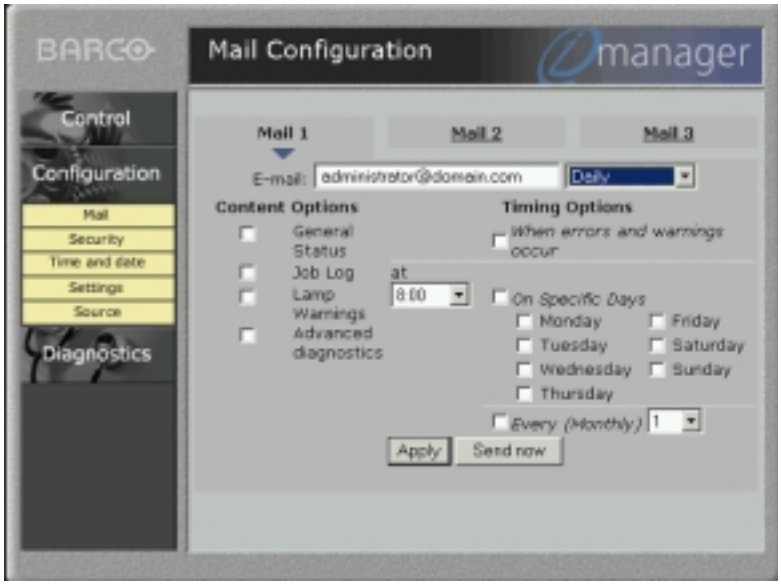


Image B-15
Mail configuration

Repeat the above steps for the other mail configurations if necessary.

B.5.3 Security

What can be done

The administrator can add or change the advanced user password and the administrator password.

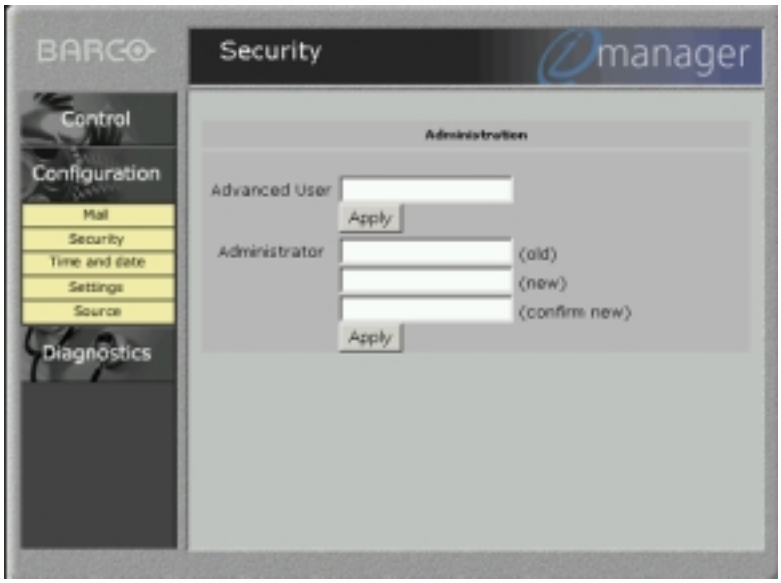


Image B-16
Security set up

Set up of the advanced user password.

Handle as follow :

1. Enter the new password.

   Only x's will be displayed on the screen while typing in the new password.

2. Click on apply to activate the password.

Changing the administrator password.

Handle as follow :

1. Enter the old password.

   Only x's will be displayed on the screen while typing in the new password.

2. Enter the new password.
3. Enter again the new password to confirm.
4. Click on apply to activate the new password.

B.5.4 Data & Time

IP

Internet Protocol. The network layer of TCP/IP. Required for communication with the internet.

TCP/IP

Transmission Control Protocol/Internet Protocol. The native protocol of the internet.

NTP

Network time protocol

Set up

To set up the time and date, handle as follow :

1. Select the time zone by clicking on the corresponding time zone in the Time zone list. (image B-17)
2. Select '*network time*' by checking the network time box and fill out the IP-address of your local NTP server. This server gives normally the GMT time, but due to time zone indication, the correct time will be filled out in the time and date text box after *Apply* is click.

   The 'Time' and 'Date' area will be grayed out but filled out with the correct time and date. The current time on projector will be adapted.
   Or ,
   Fill out the time and date text box with the following mask :
   Time : hh:mm
   Date : dd-mm-ccyy

   The NTP server address box will be grayed out.
3. Click on Apply to activate.

   The current time on projector will be adapted.

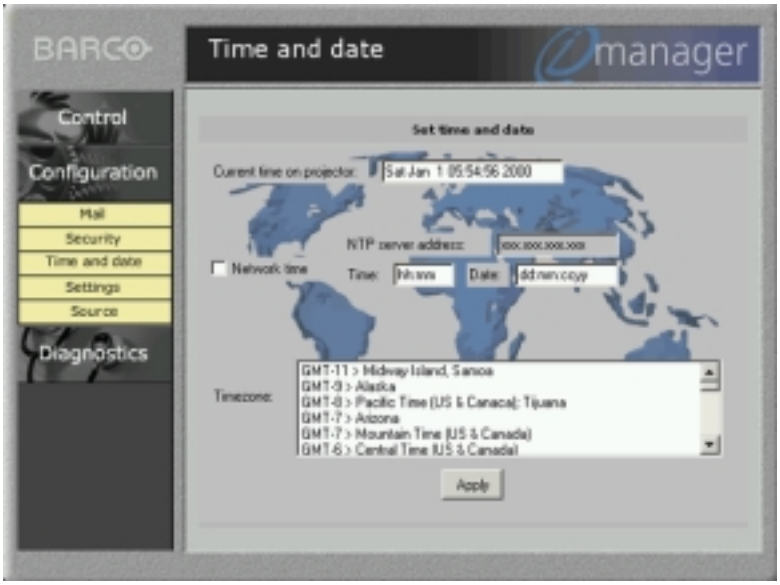


Image B-17
Date & time setup screen

Each time the projector is powered down, the date & time settings has to be filled out again when chosen for the second methode.

B.5.5 Settings

What can be done

The projector nick name, location and SMTP server address can be filled in.

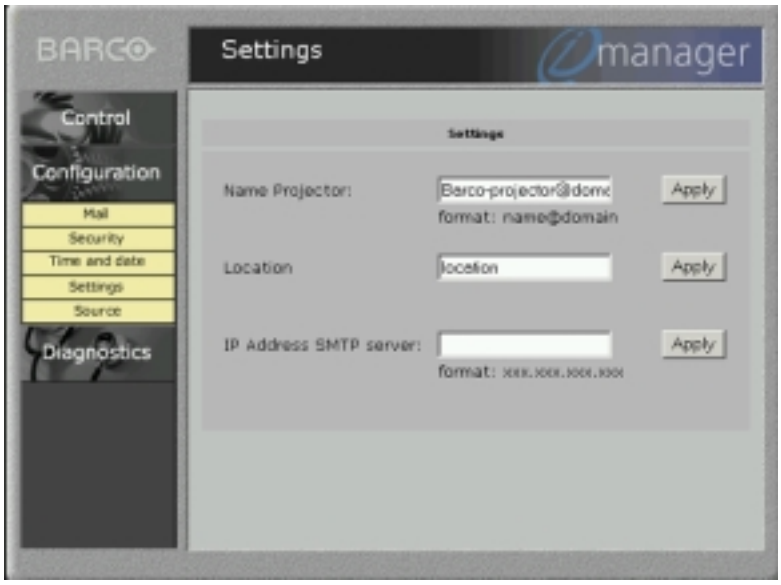


Image B-18
Settings screen

SMTP

Simple Mail Transfert Protocol. A protocol used to move internet E-mail between systems.

Projector name set up

1. Click in the projector name text field.
2. Fill out the projector nick name.
   Use the format : name@domain
3. Click on apply to add the projector name to the general start up screen.

Projector location set up

1. Click in the location text field.
2. Fill out the location.
3. Click on apply to add the location to the general start up screen.

IP address SMPT server set up

1. Click in the SMTP server text field.
2. Fill out the IP address for the SMTP server (e-mail server).

B.5.6 Source

What can be done

The source screen allows to enter a name or nick name for each slot. These names will be visible on the Control Source screen.

Image B-19
Source set up screen

How to fill out

To enter a name, handle as follow:

1. Click in the corresponding text area.
2. Enter the name.
3. Repeat both steps for other slots.
4. When finished, click on '*Apply*' to activate these names.

   These names will become visible when selecting Control item Source.

B.6 Diagnostics

Overview

- Start Up
- General Status
- Job Log
- Advanced Diagnostics

B.6.1 Start Up

Start Up

To start up the control window:

1. Click on Diagnostics.

   A drop down menu will be displayed. (image B-20)

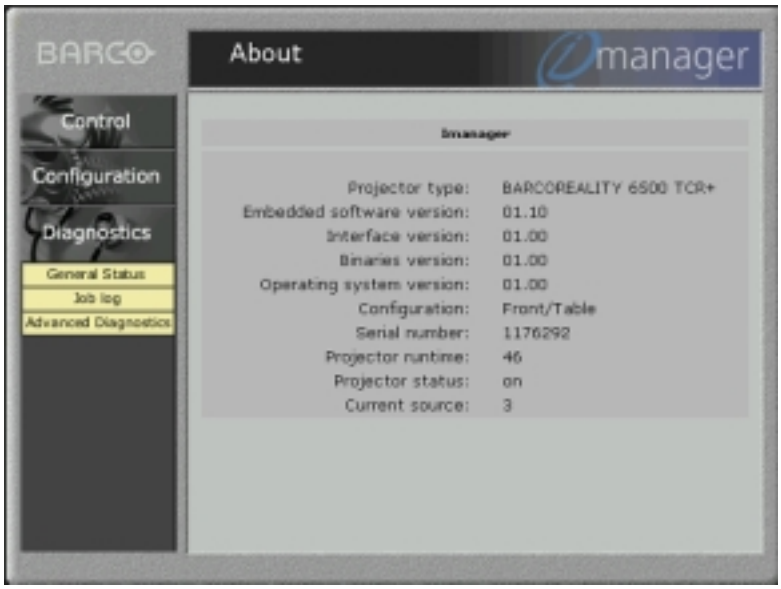


Image B-20
Diagnostics screen

Available items

- General Status
- Job Log
- Advanced Diagnostics

B.6.2 General Status

What is available

The general status page gives an overview of:

- the projector status
- type of projector
- current source
- run time
- lamp life time
- software version

B.6.3 Job Log

Overview

The job log screen gives an overview of the last 30 logs stored in the projector.

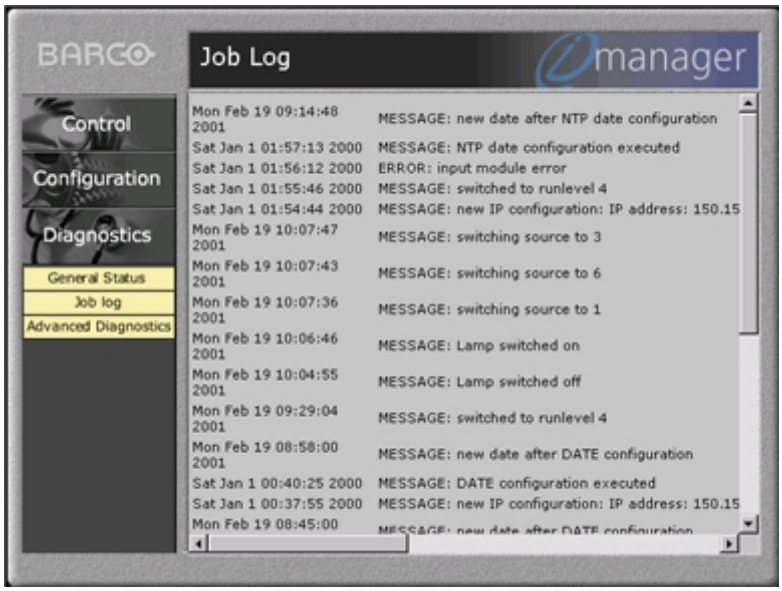


Image B-21
Job log screen

B.6.4 Advanced Diagnostics

Overview

The advanced diagnostics screen gives an overview of errors and warnings on motors, divices, I²C busses, drivers, etc.

Image B-22
Advanced diagnostics screen

When the lights in the buttons are green, no errors and no warnings for this projector at the moment. To see the possible errors or warnings of an item, click on the button to expand an error list on the right side of the advanced diagnostic screen. The lights before the items should be green.

When a warning or error occured, one of the lights in the buttons will be red and the error list for that button will be expand on the right side of the advanced diagnostic screen. The occured error should be indicated by a red light.

C. SOURCE NUMBERS 81 — 86 AND 91 — 96

C.1 Projector without any 800 peripheral connected

Overview

The source numbers 81 - 86 and 91 - 96 do not correspond to physical inputs. An additional adjustment file can be created for these source numbers. This file can contain different settings. The relationship between sources 1 - 6 and 91 - 96 or between 1 - 6 and 81 - 86 is shown in the diagram below.

Source input 1	source number 1	file A
	source number 81	file A’
	source number 91	file A”
Source input 2	source number 2	file B
	source number 82	file B’
	source number 92	file B”
Source input 3	source number 3	file C
	source number 83	file C’
	source number 93	file C”
	...	
Source input 6	source number 6	file F
	source number 86	file F’
	source number 96	file F”

How to create a second source?

Follow the steps below to create a second or a third file for sources 1 to 6 :

1. Select the source between 1 and 6.
2. Select the corresponding source number between 81 and 86 or 91 and 96 with the digit keys on the RCU.
3. Enter the adjustment mode and load a corresponding file. Edit this file if necessary.
4. Save the file and exit the adjustment mode.

C.2 Projector with a 800 peripheral connected

Overview

- Source numbers 91 — 96
- Source numbers 81 — 86

C.2.1 Source numbers 91 — 96

Overview

The source numbers 91 - 99 do not correspond to physical inputs. An additional adjustment file can be created for these source numbers (source numbers of the 800 peripheral). This file can contain different settings. The relationship between sources 1 - 9 of the 800 peripheral and 91 - 99 is shown in the diagram below.

source input 1	source input 1	file A
	source input 91	file A’
source input 2	source input 2	file B
	source input 92	file B’

source input 3	source input 3	file C
	source input 93	file C’
	...	
source input 6	source input 6	file F
	source input 96	file F’

Follow the same procedure as for a projector without a 800 peripheral connected.

C.2.2 Source numbers 81 — 86

Overview

Only valid if no input module is connected to slot 81 - 86 of a RCVDS05. The source numbers 81 - 86 correspond to the physical inputs 1 - 6 of the projector. e.g. When slot 1 of the projector has to be selected, key in source number 81. The relationship between the sources of slot 1 - 6 of the projector with 800 peripheral is shown in the table below.

source of slot 1	source number 81
source of slot 2	source number 82
source of slot 3	source number 83
source of slot 4	source number 84
source of slot 5	source number 85
source of slot 6	source number 86

D. CLEANING THE DUSTFILTER

D.1 Cleaning

When should it be done?

Depending on the environement, the dust filters should be cleaned at least when replacing the lamp. When the projector operates in dusty environement, clean the dust filters earlier than when replacing the lamp.

How to clean the dustfilter?

To clean the dustfilter, follow the next procedure :

1. Turn the projector upside down.
2. Turn out the 2 fixation screws of both dust filters. (image D-1, image D-2)
3. Clean the dust filter with a dry cloth.
4. Re-insert the dust filter.
5. Secure their position by insertion and tightening 2 fixation screws.

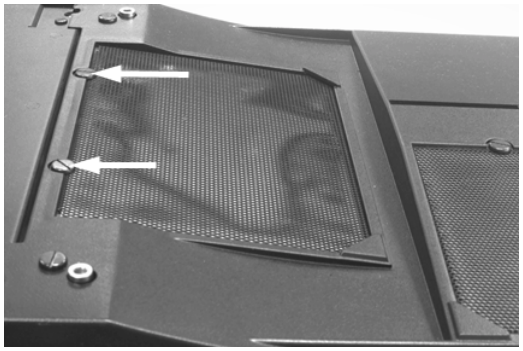


Image D-1
Opening the first dustfilter

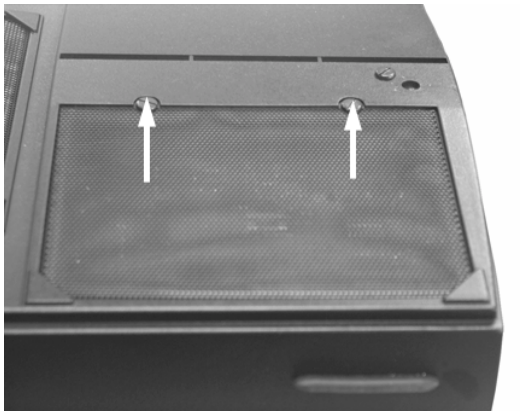


Image D-2
Second dustfilter

GLOSSARY

ANSI 73.11

American power plug to connect the power cord to the wall outlet.

CEE7

European power plug to connect the power cord to the wall outlet.

Common address

Default address. Projector will always execute the command comming from a RCU programmed with that common address.

CTI

Color transient improvement

Color transient improvement. To improve the transition from one color to another.

DHCP

Dynamic host configuration protocol

Domain

Portion of a verbal internet address separated by dots. Standard organizational domains include .edu (education), .com (commercial), .net (network sites), .mil (military sites), .gov (government sites) and .org (sites that don't fit into other domain catergories). Nations also have domain names such as .au for Australia, .be for Belgium.

DV format

Digital Video format

http

hypertext transfert protocol. The network protocol used on the World Wide Web.

IP

Internet Protocol. The network layer of TCP/IP. Required for communication with the internet.

NTP

Network time protocol

Projector address

Address installed in the projector to be individually controlled.

SMTP

Simple Mail Transfert Protocol. A protocol used to move internet E-mail between systems.

TCP/IP

Transmission Control Protocol/Internet Protocol. The native protocol of the internet.

URL

Uniform Resource Locator. A pointer to information on the World Wide Web. Can include pointers to other types of resources such as ftp servers and gopher servers in addition to WWW servers.

Video

Composite Video is a single video signal that contains luminance, color and synchronization information. NTSC, PAL and SECAM are examples of composite video systems.

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